



March 5, 2021

The Honorable Chair and Members  
of the Hawai'i Public Utilities Commission  
Kekuanao'a Building, First Floor  
465 South King Street  
Honolulu, Hawai'i 96813

Dear Commissioners:

Subject: Docket No. 2021-0024 – Opening a Proceeding to Review Hawaiian Electric's  
Interconnection Process and Transition Plans for Retirement of Fossil Fuel Power Plants  
Initial Status Update

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In response to the Commission's Order No. 37624, *Opening the Docket*, issued February 11, 2021 in the subject proceeding ("Order 37624"), the Hawaiian Electric Companies<sup>1</sup> provide the following required updates on the status of the Stage 1 and Stage 2 RFP projects as well as Phase 1 of the shared solar Community Based Renewable Energy ("CBRE") program. As the Commission has recognized, these projects, especially projects selected through the Stage 2 RFPs, are integral to providing system capacity following the planned retirements of the AES Hawaii Plant on O'ahu and the Kahului Power Plant on Maui.

The Stage 1 and 2 renewable energy procurements are historic and unprecedented. Pioneering uncharted territory requires planning and the ability, willingness, and support to adjust course if needed as progress is made. The Commission has very clearly stated its concern that the process to interconnect these and other projects may cause delayed achievement of the objectives they are intended to meet. However, the Companies respectfully point out that project delays, or the risk of delays, are not solely attributable to the Companies. The interconnection process and review are absolutely mandatory to ensure a project's successful interconnection to Hawai'i's grid. The process is complex, evolving and vitally important in order to maintain the quality of electric power the Companies strive for and customers expect. The process has been improved over time and should be continuously improved as we progress toward our 100% RPS future. As shown below, remarkable strides in improving process time have been made just between the Stage 1 and Stage 2 projects. The Companies' increased transparency and provision of more information to developers has been a key factor in achieving these improvements. While the Companies understand that they bear a significant responsibility to facilitate timely and cost-effective interconnection, the interconnection process is dependent on a multitude of factors and responsibilities, all of which contribute to whether the process is timely and successful. In particular, developers and their consultants have important responsibilities to facilitate timely initiation of the process by providing adequate models of their facilities and

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<sup>1</sup> The "Hawaiian Electric Companies" or "Companies" are Hawaiian Electric Company, Inc., Hawai'i Electric Light Company, Inc., and Maui Electric Company, Limited.

avoiding last-minute or in-process equipment changes that create unnecessary and unanticipated delays and the need for re-studies. In addition, the Companies need the Commission's support to be successful in implementing the changes necessary to improve the process. These issues are addressed below with the intent to inform and identify constructive paths forward.

Among the key status updates discussed below are the following:

- The Companies have executed and filed amended PPAs for all eight Stage 1 RFP projects reflecting updated technical information based on Interconnection Requirements Study ("IRS") results.
- Through process improvements, the interconnection process has been shortened by five months compared with Stage 1, even though more projects were procured in Stage 2.
- The 135 MW Kapolei Energy Storage I, LLC ("KES") project will largely replace the power capacity that AES represents for O'ahu. The KES project is still scheduled for commercial operation in June of 2022, prior to the retirement of AES.
- With respect to CBRE, the Companies plan to incorporate lessons learned from previous procurements and adopt "quick win" improvements identified through the CBRE stakeholder process.
- The Companies understand best laid plans may go awry. Thus, contingency plans have been refined and proposals below provide supplemental cost-effective contingency options.
- As operation of the grid becomes more complex as the State moves closer to a 100% renewable future, all parties involved in this process must share responsibility to carefully plan and execute their duties to ensure success of future procurements.

This initial status update will address the three focus areas identified in Order 37624: (1) current status of project timelines; (2) detailed discussion of action steps Hawaiian Electric is taking to address interconnection issues with current projects under development; and (3) provide information to facilitate further review of Hawaiian Electric's Fossil Fuel Power Plant Transition Plans.

The Companies submit the following exhibits with this transmittal:

Exhibit 1: Detailed Current Status of Projects [CONFIDENTIAL]

Exhibit 2: Interconnection Process – Detailed Timeline for Stage 1 and Stage 2 RFPs and Phase 1 CBRE [CONFIDENTIAL]



Exhibit 3: List of Project Permits / Government Approvals

Exhibit 4 Confidentiality Justification Table

### **Near-Term Retirements of O'ahu Fossil Fuel Units**

#### **AES**

The 180 megawatt ("MW") AES coal plant will be retired from service in September 2022 at the end of its current PPA. This is compliant with Act 23 (2020) which prohibits, after June 30, 2020, approval, renewal, or an extension of term of power purchase agreements for electricity generated from coal.

#### **Waiau Units 3 and 4 ("Waiau 3/4")**

The Companies desire to retire these 49 MW generating units, which went into operation in 1947 and 1950 respectively, as soon as possible. At its current age of 73 years old, Waiau Unit 3 is the oldest operating generating unit in the United States larger than 20 MW. Due to their many years of operation and a maintenance strategy that anticipates their retirement in 2024, these units cannot be counted on for extended reliable operation past 2024.

#### **Capacity Replacement Assets for AES and Waiau 3/4**

As shown in Figure 1 and Table 1 below, there are a variety of new O'ahu storage facilities targeted for initial commercial operation in 2022 and 2023. These new facilities will allow for continued reliable energy supply and delivery after the retirements of AES and Waiau 3/4.

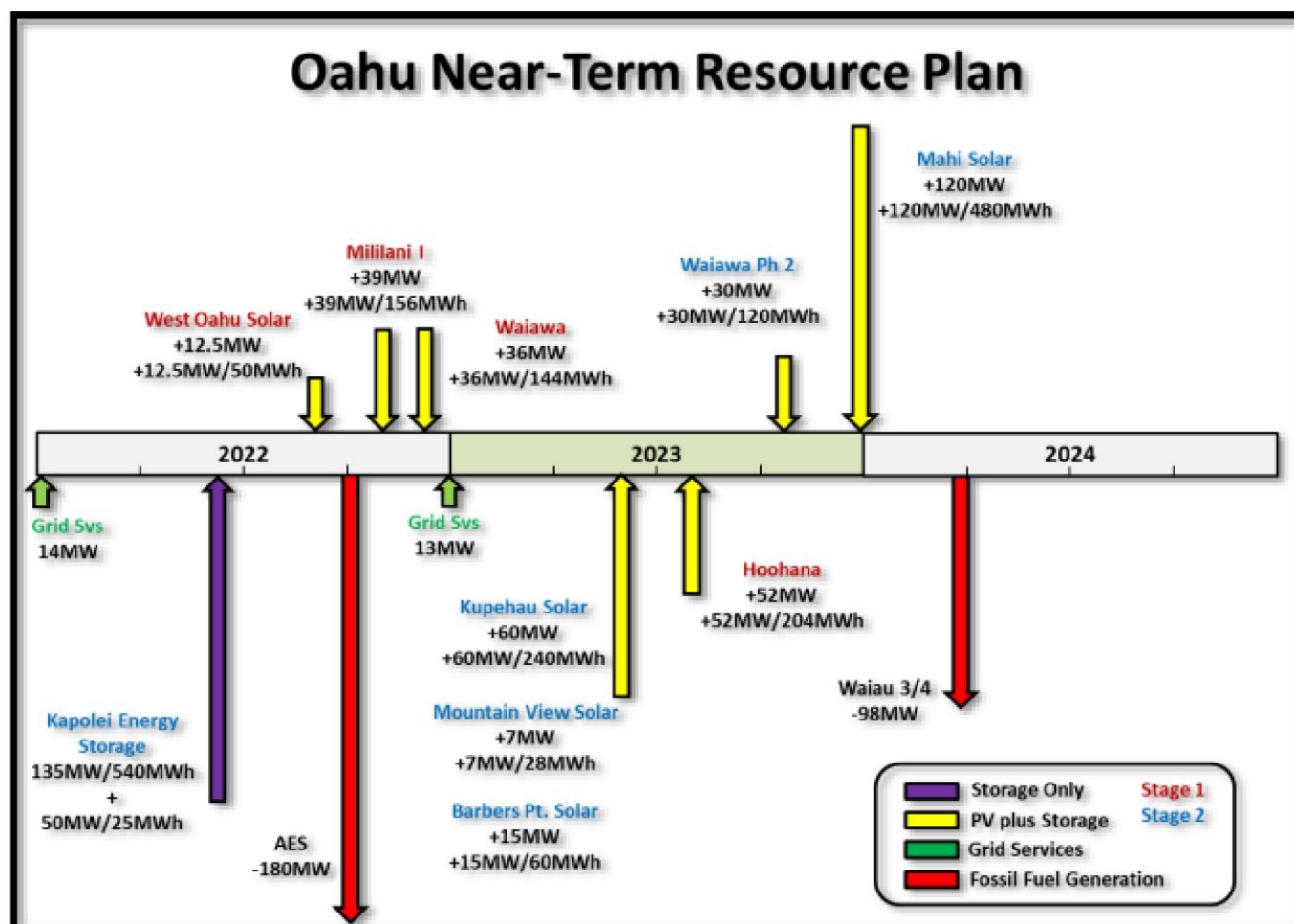


Figure 1

Type of Resource	Nameplate Capability for Scheduled In-Service Years		Totals
	2022	2023	
Grid Services*	27 MW	0 MW	27 MW
Stand-Alone Storage**	135 MW	0 MW	135 MW
Storage Tied to PV**	87.5 MW	284 MW	371.5 MW
<b>Totals</b>	<b>249.5 MW</b>	<b>284 MW</b>	<b>533.5 MW</b>

\* Grid Services will be for delivering load build, load reduction, and Fast Frequency Response by current aggregators.

\*\* These resources have capability of 4-hours of storage at nameplate capacity

Table 1



### **Replacement for AES**

The 135 MW KES project is targeted to replace the power capacity that AES represents for O'ahu. Without AES and with this new stand-alone storage project, Hawaiian Electric's Energy Reserve Margin analysis shows there should be sufficient reserve margin to meet the capacity planning criteria. The KES project is currently scheduled for commercial operation in June of 2022, prior to the retirement of AES.

### **Replacements for Waiau 3/4**

With AES being replaced by KES, approximately 100 MW – 180 MW of additional 4-hour battery storage in the form of grid services and storage tied to PV should be sufficient to satisfy the planning criteria if both Waiau Unit 3 and Waiau Unit 4 are assumed to be retired. Since new battery storage projects have different sizes and attributes, such as limited grid charging, interconnection to the transmission network or radial sub-transmission lines, and locational differences, several different battery storage combinations could meet the planning criteria. Based on current schedules, a sufficient amount of storage is anticipated to be in service by the end of 2023, thereby allowing for the planned retirement of Waiau 3/4 in 2024.

### **Contingency Plans**

#### **AES Retirement**

##### **Delay of KES Project**

While Hawaiian Electric expects the KES project to be placed into service as scheduled and prior to the retirement of AES in September 2022, some amount of delay could still occur without materially affecting grid reliability. Existing generating unit planned maintenance schedules have already been adjusted to minimize planned outages between September 2022 and the end of the year. This plan, coupled with the anticipated addition of 114.5 MW of Stage 1 storage tied to PV and grid services, is anticipated to provide sufficient margin to accommodate the contingency of a schedule slip to the end of 2022.

Delay of the KES project past 2022 and up to mid-2023 would prove more problematic because eliminating or rescheduling existing unit planned outages will not be practical past the end of 2022. Assuming the 2022 Stage 1 O'ahu RFP PV plus storage projects are in place, there will be some reserve margin, but not enough to fully satisfy the planning criteria. Therefore, additional contingency plans may be warranted should this situation arise. The following is a list of potential contingency actions identified to date for this scenario:

1. Obtain new Grid Services via an RFP targeting 60 MW of capacity: The Companies filed their draft O'ahu Grid Services RFP on February 23, 2021 in

Docket No. 2017-0352. The Consumer Advocate and stakeholders have until March 9, 2021 to submit comments on the draft RFP. Preference will be given to bids that can commit to grid service delivery by September 2022.

2. Install a 20 MW, 4-hour battery tied to Hawaiian Electric's West Loch PV facility: Given the circumstances, and if necessary, the Company could prepare and file a General Order No. 7 application within two to three weeks. To have this project in place by the end of 2022, Commission approval would be required by the end of June 2021. This battery could be in-service 18 months following Commission approval.
3. Lease 20 MW of batteries and tie to the West Loch PV facility during the lease period: This would require Exceptional Project Recovery Mechanism approval. Schedule, cost, and availability are undetermined at this time.

Accommodating delays to the KES project past mid-2023 will be very challenging without the implementation of contingency measures, since peak demand for electricity typically starts to rise at that time of the year through October. Although options to expedite PV plus storage projects with mid-2023 service dates may be limited, the Companies are exploring all options to do so.

#### Cancellation of the KES Project

The KES project is on schedule and no community opposition is apparent, but the regulatory approval process in Docket No. 2020-0136 is ongoing. If the Commission does not approve the Company's requests in Docket No. 2020-0136 or other unexpected issues arise that prevent project completion, the planned PV plus storage projects and contracted grid services will become Hawaiian Electric's primary means for maintaining reliability upon retirement of the AES Hawaii facility. Delays to completion of the planned PV plus storage projects and contracted grid services could result in a lack of sufficient capacity to fully replace AES until mid-2023. It would also trigger the need to have further contingency plans in place in case a subset of the planned Stage 1 and Stage 2 RFP projects are delayed further or do not get completed. These contingency plans could include the following:

1. Reactivate Honolulu Unit(s) 8 and/or 9 until sufficient Stage 1 and Stage 2 RFP projects are in service. It will likely take approximately six months for equipment restoration and operator training to resume operations.
2. Plan for extended operation of Waiau 3 and/or 4 if sufficient amounts of Stage 1 and 2 RFP projects are not in service by the end of 2023.



Of course, neither of these contingency options are desired. Hawaiian Electric's current plans are to permanently retire Honolulu Units 8 and 9 and Waiau 3 and 4, subject to progress milestones being reached for the KES project. Following approval of the KES project energy storage PPA ("ESPPA"), the Companies will file an application with the Commission for accounting treatment of these assets upon retirement.

Additionally, under the ESPPA, the KES project can provide 50 MW of FFR1 capability, which is an independent need not tied to the retirement of AES.

### **Waiau 3 and 4 Retirement**

Provided the KES project is completed on time, about 100 MW – 180 MW, depending on project combinations, of planned storage is necessary to meet capacity planning criteria. Therefore, resource additions that are currently planned should be sufficient to cover the retirement of Waiau 3 and 4 without consideration of any further contingency measures.

### **Current Status of Project Timelines**

Hawai'i's ambitious renewable energy goal requires all stakeholders to tackle unique challenges as our State is at the forefront of the adoption of clean energy. As stated in the Companies' February 25, 2021 letter in response to the Commission's January 21, 2021 letter in Docket No. 2017-0352 relating to a Stage 3 RFP:

Achieving these high levels of renewable energy will fundamentally change the operation of the power system, with much greater reliance on inverter-based resources. Studies are underway to (1) define the required supplemental resources and control strategies and (2) evaluate the effect of weather extremes on variable energy resources, both of which are often correlated. The results of these studies will help to target more dispatchable resources that can complement the availability of the inverter-based resources that have already been procured.<sup>2</sup>

Since the December 18, 2020 Status Conference in Docket No. 2017-0352 ("December 18, 2020 status conference"), significant progress has been made in the Stage 1 and Stage 2 RFP projects, as well as the CBRE Phase 1 projects. The Companies provide a status update below.

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<sup>2</sup> Development of Stage 3 RFP for Hawai'i Island, filed in Docket No. 2017-0352 on February 25, 2021 ("Stage 3 Letter").

### **Stage 1 RFP Project Updates**

Although the Stage 1 projects have experienced delays in the interconnection process, at present, seven<sup>3</sup> of the eight projects have completed the Interconnection Requirements Study (“IRS”) process, and amended power purchase agreements (“PPAs”) have been executed for all eight projects reflecting updated technical information based on the IRS results. For all the Stage 1 projects, as illustrated with further detail in Exhibit 2, some form of re-study was necessitated by the developer’s decision to make changes in equipment or project design. In this process, decisions made by one project team can have a ripple effect on all other projects on that island and the Companies must work diligently with all parties while exercising their best judgement to manage the collective effort. This is especially noteworthy because the PPA states that “[i]n the sole event that the IRS results show that achieving this Guaranteed Commercial Operations Date is commercially unreasonable, an updated Guaranteed Commercial Operations Date will be included in the Interconnection Requirements Amendment.” Thus, project changes that delay the completion of the IRS process have the potential to affect the Guaranteed Commercial Operations Date (“GCOD”).

The Companies introduced a bifurcated approval process, which separates the approval of the PPA from the approval of the overhead line extension, as a process improvement for the purpose of expediting the overall PPA approval process. This was done to allow for a PPA to be executed with a developer, and the PPA approval application to be filed with the Commission, before the results of the IRS are known. The developers and Companies must keep working towards timely completion of the interconnection process (including any re-studies), because of its direct impact on the critical steps that follow. Engineering and design, construction, acceptance testing, and commissioning all require extensive planning, coordination, and resources. The Companies have never attempted to coordinate a simultaneous procurement of eight utility scale projects that are being designed and managed by independent developers. Despite the challenges and growing pains experienced in Stage 1, the Companies are committed to working together with the developers to achieve commercial operations as soon as possible.

The Companies recognize the importance of keeping projects on schedule. However, the Companies do not believe that it is warranted for the Commission to impose punitive measures<sup>4</sup> by adjusting the performance incentive mechanism (“PIM”) for the Stage 1 projects. The PIM

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<sup>3</sup> As noted by the Companies in their February 26, 2021 transmittal letter to the Commission transmitting the Ho’ohana Solar 1, LLC IRS Amendment, one remaining re-study of that IRS’ system impact study remains to be completed, which is anticipated before the end of 2Q 2021. The results of the study are largely known, however, and worst-case scenario cost estimates have been quantified. Most importantly, the developer has agreed to move forward with the PPA and executed the IRS amendment without contingency.

<sup>4</sup> It is the Companies’ position that prior to any punitive action by the Commission such as assessing monetary penalties, damages or making adverse adjustments to the PIM, the Companies should be afforded due process rights such as an evidentiary hearing, including the right to call and cross-examine witnesses and appropriate findings and conclusions as required by law. The Companies are not waiving any such rights, including their rights under Hawai’i Revised Statutes Chapter 91.



already provides incentive to bring these projects online as soon as possible because the second part of the PIM reward is not available until one year after commercial operation of the projects. Thus, delay in commercial operation delays the reward.<sup>5</sup> The Companies also respectfully submit that materially changing the terms of a PIM during the performance period risks undermining the incentive value and confidence in the promise of PIMs in general, especially to the extent a change is implemented based on actions of developers that have caused delays.

Initially presented at the Commission's December 18, 2020 status conference, Table 2a and Table 3 are included below to provide a current high-level status of each of the Stage 1 and Stage 2 projects. In these tables, each project is given a colored-coded dot, indicating if the project is on target to meet its contracted GCOD or at risk, based on certain milestones in the PPA. The GCODs shown in Table 2a reflect dates agreed to with each developer through a PPA amendment based on the results of the project's IRS. Other cells in the table provide a status of various phases of the project timeline. As noted in the column titled "Permits/Govt. Approvals", "SEE EXHIBIT 3" refers to Exhibit 3, which lists all permit and government approvals remaining and the status of such approvals needed to achieve commercial operations for each project. Currently, none of the Stage 1 projects are in construction, but the later milestones are shown in Table 2b for use in future status updates. The dates shown in Table 2b refer to significant milestones in the PPAs that will aid in tracking the status of each project. In addition, more detailed descriptions of the status of the Stage 1 and Stage 2 projects are included in Exhibit 1.

Exhibit 1 includes details of where the project lies within a certain phase of its schedule as well as factors (e.g. delays, challenges, etc.) that impact its progress. The Companies understand that meeting a project's GCOD is top priority and therefore do not accept changes to the GCOD lightly. The Stage 1 and Stage 2 RFP projects have gone through numerous challenges not only through the System Impact Studies, but also through negotiations in the IRS Amendment process. The bifurcation of the IRS in both Stage 1 and Stage 2 was meant to expedite the overall IRS process and execution of an IRS Amendment. However, as seen in the following tables for Stage 1, this has caused delays for both the Companies and developers. Other factors that affect the overall schedule for a project are re-studies due to developer-attributable impacts (equipment changes, changes to the Point of Interconnection, the withdrawal of a project, etc.), changes to the Company interconnection, engineering/design, procurement and construction. Through the disciplined collaboration with project developers, the Companies strive to not only meet the GCOD in the PPA, but also find ways to make improvements that affect the critical path of the project schedule.

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<sup>5</sup> See Order No. 35405, "Establishing a Performance Incentive Mechanism for Procurement in Phase 1 of the Hawaiian Electric Companies' Final Variable Request for Proposals," filed on April 6, 2018 in Docket No. 2017-0352 at 14.

### Current Status of Stage 1 Projects

	GCOD*	System Impact Study	Facility Study	Early Engineering	IRS Amendment	PUC Overhead Line Review	Engineering/Design	Permits/Govt. Approvals
AES West Oahu	● Sept 7, 2022	RE-STUDY IN PROGRESS	COMPLETED	N/A	COMPLETED Filed 9/8/20	IN PROGRESS	IN PROGRESS	SEE EXHIBIT 3
AES Waikoloa	● Nov 3, 2022	RE-STUDY IN PROGRESS	COMPLETED	N/A	COMPLETED Filed 8/31/20	APPROVED 2/4/21	IN PROGRESS	SEE EXHIBIT 3
AES Kulihehane	● Oct 27, 2023	RE-STUDY IN PROGRESS	COMPLETED	N/A	COMPLETED Filed 2/16/21	IN PROGRESS	IN PROGRESS	SEE EXHIBIT 3
Hale Kuawehi	● Dec. 2, 2022	RE-STUDY IN PROGRESS	COMPLETED	N/A	COMPLETED Filed 9/4/20	APPROVED 2/4/21	IN PROGRESS	SEE EXHIBIT 3
Paeahu Solar	● April 28, 2023	RE-STUDY IN PROGRESS	COMPLETED	N/A	COMPLETED Filed 10/29/20	IN PROGRESS	IN PROGRESS	SEE EXHIBIT 3
Ho'ohana Solar	● Aug 31, 2023	RE-STUDY IN PROGRESS	COMPLETED	IN PROGRESS	COMPLETED Filed 2/26/21	IN PROGRESS	IN PROGRESS	SEE EXHIBIT 3
Mililani I Solar	● Nov 1, 2022	RE-STUDY IN PROGRESS	COMPLETED	N/A	COMPLETED Filed 9/18/20	NOT REQUIRED	IN PROGRESS	SEE EXHIBIT 3
Waiawa Solar	● Dec 1, 2022	RE-STUDY IN PROGRESS	COMPLETED	N/A	COMPLETED Filed 10/9/20	IN PROGRESS	IN PROGRESS	SEE EXHIBIT 3

\*Dates filed in the IRS Amendment

- On target to meet GCOD
- Reporting Milestone missed

**Table 2a**



	Construction Start	Acceptance Test	Energization	Commissioning*	CSAT*	COD
AES West Oahu	Sept 3, 2021	April 5, 2022	May 17, 2022			Sept 7, 2022
AES Waikoloa	June 4, 2021	April 7, 2022	May 19, 2022			Nov 3, 2022
AES Kuihelani	April 5, 2022	Feb 25, 2023	April 8, 2023			Oct 27, 2023
Hale Kuawehi	Feb 23, 2022	Aug 9, 2022	Sept 9, 2022			Dec 2, 2022
Paeahu Solar	Jan. 24, 2022	Jan. 6, 2023	Feb. 13, 2023			April 28, 2023
Ho'ohana Solar	Mar 1, 2022	Jan 17, 2023	Mar 6, 2023			Aug 31, 2023
Mililani I Solar	July 30, 2021	Feb. 4, 2022	Mar 17, 2022			Nov 1, 2022
Waiawa Solar	Aug. 2, 2021	April 18, 2022	May 25, 2022			Dec 1, 2022

\*Milestone dates not in the PPA

**Table 2b**

## Stage 2 RFP Project Updates

To address some of the challenges experienced with the Stage 1 RFP projects and to prepare for the Stage 2 RFPs, the Companies provided developers with more detailed model documentation upfront so that they could develop and submit more timely and better quality facility models that required comparatively fewer iterations before acceptance. The quality and accuracy of the models are critical to the commencement and successful completion of a System Impact Study ("SIS"). Because Hawai'i is on the leading edge of renewable integration and has a unique system grid, the required facility models are often not off-the-shelf iterations that can be easily implemented for the studies. Nevertheless, the models must accurately represent the facility and its operation within the operating parameters needed to meet the conditions of the PPA. Accordingly, as was found in Stage 1, meeting the modeling requirements proved to be technically challenging for developers, often requiring between seven to nine iterations per project before working models were obtained. For the Stage 1 projects, not receiving functional models from developers on time was the primary cause for delay in completing the SIS. When comparing the model checkout durations between Stage 1 and Stage 2 in Exhibit 2, it is clear that the process improvement above resulted in significant improvements to the model validation process, which was shortened by up to five months in Stage 2 even though significantly more projects were procured than in Stage 1.

The Companies filed ten PPAs as a result of the Stage 2 RFPs. Eight of the ten were filed on September 15, 2020. Additionally, two Self-Build project applications were filed on September 15, 2020. As noted in the section above, Table 3 below provides a high-level status of each of the Stage 2 projects in their various phases of development. Notable differences between Stage 1 and Stage 2 projects are the added phases: Preliminary Facility Study and Early Engineering. While the Preliminary Facility Study was provided to developers ahead of the final Facility Study, Early Engineering was offered to developers as a way to start design review ahead of fully completing the IRS, which could help with the project schedule. Detailed descriptions of the status of the Stage 2 projects are included in [Exhibit 1](#).

Current Status of Stage 2 Projects

Project Name	Island	GCOD	Under PUC Review	Model Checkout	System Impact Study	Preliminary Facility Study	Facility Study	Early Engineering	Permits, Government Approvals
Barbers Point Solar	O'ahu	● Dec 29, 2023	FILED: 9/15/20 UNDER REVIEW	COMPLETED	IN PROGRESS	UNDER REVIEW BY DEVELOPER	IN PROGRESS	OFFERED TO DEVELOPER	SEE EXHIBIT 3
Kapolei Energy Storage	O'ahu	● June 1, 2022	FILED: 9/15/20 UNDER REVIEW	COMPLETED	IN PROGRESS	COMPLETED	IN PROGRESS	IN PROGRESS	SEE EXHIBIT 3
Kupehau Solar	O'ahu	● May 31, 2022	FILED: 9/15/20 APPROVED: 12/30/20	IN PROGRESS	IN PROGRESS	UNDER REVIEW BY DEVELOPER	IN PROGRESS	IN PROGRESS	SEE EXHIBIT 3
Mahi Solar	O'ahu	● Dec 31, 2023	FILED: 9/15/20 APPROVED: 12/30/20	COMPLETED	IN PROGRESS	UNDER REVIEW BY DEVELOPER	IN PROGRESS	OFFERED TO DEVELOPER	SEE EXHIBIT 3
Mountain View Solar	O'ahu	● May 17, 2023	FILED: 9/15/20 UNDER REVIEW	COMPLETED	IN PROGRESS	UNDER REVIEW BY DEVELOPER	IN PROGRESS	OFFERED TO DEVELOPER	SEE EXHIBIT 3
Waiawa Phase 2 Solar	O'ahu	● Oct 30, 2023	FILED: 9/15/20 APPROVED: 12/30/20	COMPLETED	IN PROGRESS	UNDER REVIEW BY DEVELOPER	IN PROGRESS	OFFERED TO DEVELOPER	SEE EXHIBIT 3
Kahana Solar	Maui	● Dec. 29, 2023	FILED: 9/15/20 UNDER REVIEW	COMPLETED	IN PROGRESS	UNDER REVIEW BY DEVELOPER	IN PROGRESS	OFFERED TO DEVELOPER	SEE EXHIBIT 3
Kamaole Solar	Maui	● April 30, 2023	FILED: 2/16/21 UNDER REVIEW	NOT STARTED	NOT STARTED				SEE EXHIBIT 3
Pulehu Solar	Maui	● April 30, 2023	FILED: 9/15/20 UNDER REVIEW	COMPLETED	IN PROGRESS	UNDER REVIEW BY DEVELOPER	IN PROGRESS	IN PROGRESS	SEE EXHIBIT 3
Waeana BESS	Maui	● April 28, 2023	FILED: 9/8/20 UNDER REVIEW	COMPLETED	IN PROGRESS				SEE EXHIBIT 3
Keahole BESS	Hawai'i	● Dec. 30, 2022	FILED: 8/28/20 UNDER REVIEW	COMPLETED	IN PROGRESS				SEE EXHIBIT 3
Puakō Solar	Hawai'i	● Sept. 30, 2023	FILED: 11/13/20 UNDER REVIEW	COMPLETED	IN PROGRESS	UNDER REVIEW BY DEVELOPER	IN PROGRESS	OFFERED TO DEVELOPER	SEE EXHIBIT 3

● On target to meet GCOD

Table 3



### CBRE Phase 1 Project Updates

Initially, due to the smaller project sizes and limited applications for projects, the interconnection process for CBRE Phase 1 projects prioritized project viability over process time by exploring alternatives to standard interconnection design to lower developer costs, seeking a balance between maintaining safe interconnection and improving project financials. Many of the challenges encountered centered on agreement with the developer on the scope and cost of Company-owned interconnection facilities required as a result of the project's Facility Study. The Companies recognize that this process was unnecessarily extended and have been exploring ways to mitigate these delays, some of which have been implemented in the Companies' proposed CBRE tariff for Phase 2. Further measures are described below.

### Current Status of CBRE Phase 1 Projects

	GCOD	Application Review	System Impact Study / IRS	Facility Study	Contracts / Agreements	Construction
Milliani Tech Park	Feb 1, 2021	COMPLETED	N/A	N/A	COMPLETED	COMPLETED
O'ahu Project #2	2022-Q3 <sup>1</sup>	COMPLETED	COMPLETED	COMPLETED	IN PROGRESS	UNDER REVIEW BY DEVELOPER
O'ahu Project #3	2022-Q3 <sup>1</sup>	COMPLETED	COMPLETED	COMPLETED	IN PROGRESS	UNDER REVIEW BY DEVELOPER
ROIZ	Dec 1, 2020	COMPLETED	COMPLETED	N/A	COMPLETED	COMPLETED
Molokai Project #1	2022-Q3 <sup>1</sup>	COMPLETED	COMPLETED	N/A	IN PROGRESS	UNDER REVIEW BY DEVELOPER
Hawai'i Island Project #3	2022-Q3 <sup>1</sup>	COMPLETED	COMPLETED	N/A	IN PROGRESS	UNDER REVIEW BY DEVELOPER

<sup>1</sup> Company Estimated Completion Date based on 18 months for construction.

**Table 4**

Exhibit 2 includes more detailed charts of interconnection progress, including the additional time needed if a re-study is required.

The Companies have also reached out to the developers of projects in the pipeline to provide a complete list of all permits and government approvals remaining and the status of such approvals needed to achieve commercial operations. Details are provided in Exhibit 3.



### **Steps to Improve Timelines**

Recognizing that many stakeholders share responsibility for ensuring the timely completion of not only the interconnection process, but in bringing a project into commercial operation, the Companies have explored a variety of options to accelerate the interconnection process through several dockets. One challenge for both developers and the Companies is how to best implement improvements when the extremely aggressive pace of the procurements leaves little time to digest the results of the previous RFP. For example, the Stage 2 RFPs were issued in August of 2019, while model checkout was still in progress for the Stage 1 projects. Nevertheless, the Companies have been open to exploring and testing RFP process improvements.

#### **CBRE**

During the development of the CBRE RFPs in Docket 2015-0389 in 2020, the Companies proposed several ways to potentially improve the time and cost of interconnection. For example, with the draft RFPs, improved project cost information and single line diagrams and samples of technical notes were provided in Appendix H to the RFPs to give potential developers better information from which to prepare their proposals and provide better pricing. Four examples representing hypothetical CBRE projects were also included to illustrate the application of the unit cost tables.

As another example, to address the uncertainty around interconnection for the CBRE Low and Moderate Income ("LMI") RFPs, the Companies also proposed, on a pilot basis, to remove the interconnection costs for Company-owned interconnection facilities from the pricing bid by developers by assuming responsibility for these costs and for completion of the interconnection work. This means that developer pricing would only reflect the cost to build the facility and seller-owned interconnection facilities. Assumed costs for interconnection would be based on the typical CBRE interconnection provided in Appendix H of the Draft LMI RFP and used as a proxy in the evaluation process. Additional improvements to the interconnection process that were formerly proposed by the Companies are more fully explained in the Companies' LMI and Tranche 1 CBRE RFP filings from 2020.

On January 29, 2021, in the CBRE proceeding (Docket No. 2015-0389), the Commission issued Order No. 37592 ("Order No. 37592") which, among other things, directed the Companies to collaborate with the Parties and Participants to the proceeding to develop recommendations for improvements to the interconnection process and other elements of the CBRE program. The Commission prioritized the following areas for further consideration: (1) interconnection; (2) LMI customer enrollment and verification; (3) general participation requirements; (4) grid services; and (5) the bid evaluation process.<sup>6</sup> The Commission directed

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<sup>6</sup> See Order No. 37592 at 3.

the Companies to file recommendations on these topics within sixty days of the date of Order No. 37592, or by March 30, 2021.

The Companies have initiated the process of collaborating with the Parties and Participants in the CBRE docket. The Companies thus far have facilitated two collaborative meetings on the interconnection and LMI customer enrollment and verification topics and have scheduled additional meetings to focus on the remaining topics. The Companies collected extensive feedback on interconnection in particular and are evaluating each recommendation for implementation. Given the short duration of sixty days to develop recommendations, through this collaborative process, in accordance with Order No. 37592, the Companies identified which recommendations could be implemented immediately as “quick wins” or in the near-term. The Companies will be providing a comprehensive description of the interconnection recommendations in their upcoming March 30, 2021 filing in the CBRE docket but explain some of the near-term modifications that will be made below.

To provide more clarity on the interconnection process and to assist developers in the preparation of their project estimates, the Companies are creating several resources to enhance the information in Appendix H. First, the Companies will provide guidance on the scope of work and cost responsibilities for CBRE interconnections. This information will elaborate on Tariff Rule 19 and provide more details on how the Companies are treating specific items in the interconnection scopes. The purpose of providing this information is to increase transparency as to the interconnection requirements, and to remove ambiguity as to the party responsible for cost of the associated work. Secondly, the Companies are revising the standard interconnections in an effort to simplify the design and reduce costs. The Companies will include corresponding single line diagrams for these options as a part of the CBRE RFP. Finally, the Companies are updating and expanding the baseline costs provided in Appendix H to align with the new standard interconnections and provide more specific variations based on the size of the project and the type of existing facilities in the area. The Companies are carefully reviewing the assumptions and inputs that were used to generate the baseline costs, and found more cost-effective design solutions, reducing costs where possible. The Companies expect that these changes will streamline the design and construction of the interconnection facilities, reduce baseline costs, and reduce overall developer costs. The additional clarity and more comprehensive baseline cost information should help developers prepare more accurate project estimates and schedules and decrease the overall uncertainty of the interconnections. The Companies intend to continually improve the information in Appendix H and look for ways to make these types of improvements for larger projects in the future. Additionally, as the Stage 1 and Stage 2 renewable projects advance through the interconnection process, the Companies will be able to analyze the historical data on the duration of the various steps of the interconnection process and make this information available to developers as a reference for their project schedule development in the future.



The Companies believe that removing the uncertainty of interconnection costs could benefit customers, developers and the Companies by preventing risk of over-inflation of prices to account for potentially unknown interconnection costs, which should lower costs for customers. It should also avoid delays during the interconnection process by eliminating any need for discussions between the Companies and developers regarding whether a requirement is more properly characterized as an interconnection requirement or a system upgrade. Further, the risk of developers dropping out of the process during the IRS amendment process if interconnection costs are higher than the developer assumed in its bid is avoided, thus providing greater assurance of successful projects. Finally, with more control over interconnection design, the Companies should have more opportunity to identify and execute upon innovative cost saving solutions, such as combining interconnection requirements for multiple projects.<sup>7</sup>

To this end, in addition to near-term updates, the Companies are also considering broader improvements to the interconnection process that will require more time for implementation. Such improvements could include more out-of-the-box ideas, such as greater specificity in siting, technology, and scope, allowing for interconnection and community challenges to be identified and addressed earlier rather than later. These longer-term improvement efforts will be identified as “parking lot” items in the Companies’ March 30, 2021 filing in the CBRE docket and were also described in the Companies’ Stage 3 Letter. For example:

- Performing additional transmission analyses upfront to identify existing substation sites for interconnection to obviate the need for developers to construct new substations for interconnection.
- Exclusion of sites that would require major transmission upgrades in order to support the interconnection of additional renewable projects.

### **Stage 1 RFPs**

In light of the delays experienced through the interconnection process for Stage 1, and recognizing that in addition to the Companies, developers and their contractors and consultants, as well as regulatory and government agencies bear a shared responsibility for project timeliness, the Companies sent letters to all developers encouraging collaboration to accelerate schedules. In addition, the Companies have started meeting biweekly with certain developers to ensure project schedules remain on track.

### **Stage 2 RFPs**

The results of the efforts to incorporate lessons learned to improve processes have largely not yet been seen, as these RFPs were initiated very closely following the submission of the Stage 1 RFP projects for Commission review. However, several efforts have already

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<sup>7</sup> See Exhibit 1 to the Companies’ CBRE Phase 2 Draft Tariff and Appendices and RFPs, filed July 9, 2020, in Docket No. 2015-0389 at 11.



demonstrated positive results or are contributing to the compression of schedules to meet aggressive in-service deadlines.

Requesting working facility models from developers, a condition precedent to commencement of the IRS, earlier in the process and prioritizing projects with earlier GCODs (projects to replace the AES Hawaii Plant on O'ahu or the Kahului Power Plant on Maui) have resulted in a five month improvement over Stage 1.

Another improvement made was to commence the Facility Study portion of the IRS earlier and in parallel with the SIS, rather than sequentially (first SIS, then Facility Study) as was done in Stage 1. This improvement was based on the observation that the risk of needing to re-do portions of the Facility Study due to changes in the SIS is relatively low.

In the RFPs for Lāna'i and Moloka'i, the Companies identified specific sites for development, significantly reducing the cost of land for projects and facilitating more beneficial interconnection. On Lāna'i in particular, the Companies worked with the majority landowner to identify an optimal site near the Miki Basin switchyard and power plant. Requiring all projects to utilize the site allowed for a specific project size to be specified in the RFP and reduced the projected duration of the RFP evaluation for the Lāna'i RFP.<sup>8</sup>

Finally, the Companies offered Stage 2 developers the opportunity to begin the engineering and design phase of development (which requires Company review for adherence to Company specifications for Company-Owned Interconnection Facilities) ahead of completion of the IRS. In some cases, through the execution of early engineering agreements with the Companies, developers demonstrated a willingness to expend significant sums of money up front in order to maintain the initially proposed schedules.

The Companies propose providing quarterly updates to the Commission regarding the ongoing status of renewable projects in the pipeline through this docket. As discussed above, the Companies also plan to adopt "quick win" improvements identified through the CBRE stakeholder process through Order No. 37592 in Docket No. 2015-0389. Finally, any CBRE issues identified as appropriate to be placed in the "parking lot"<sup>9</sup> can be addressed through further action in this docket.

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<sup>8</sup> See Exhibit 1 to the Companies' Moloka'i and Lāna'i RFP, filed August 6, 2019 in Docket No. 2017-0352. These RFPs were moved to a new proceeding, Docket No. 2019-0178 per Order No. 36492, issued on August 29, 2019. The Lāna'i RFP was subsequently proposed to be combined with the CBRE requirement for the island in the Companies' July 9, 2020 draft RFP filing in Docket No. 2015-0389.

<sup>9</sup> See Order No. 37592, issued in Docket No. 2015-0389 on January 29, 2021 at 6.

### **Conclusion**

As stated above, the Companies anticipate providing additional updates to the Commission on a quarterly basis so that any issues are identified and can be addressed as they arise. Much progress has been made in improving the interconnection process, but the Companies are continually looking for further areas in need of improvement.

In conclusion, the Companies remain committed to continuously improving the process of taking projects from planning, through procurement, including projects from the Stage 1 and Stage 2 RFPs and the CBRE program, through interconnection studies, engineering and design review, construction, and ultimately, commercial operation. Any achievements, however, will require the combined effort of all parties involved in the process, including developers, their engineers, suppliers, and contractors, permitting agencies, and other stakeholders. It is imperative to the success of this docket that this fundamental fact is recognized and acknowledged by all parties involved. This filing clearly reflects and acknowledges the shared responsibility of many parties for past and current delays. That said, the Companies are encouraged by the improvements already implemented that have been described herein and are motivated to implement further meaningful and reasonable improvements that may come from this proceeding. The Companies encourage all other participants in this process to look for opportunities to expedite their own processes and efforts and look forward to further collaboration on the multi-step process envisioned by this proceeding to bring the current projects, and all future projects, to successful commercial operation in the most timely and cost-effective manner possible.

Sincerely,

/s/ Colton K. Ching

Colton K. Ching  
Senior Vice President  
Planning & Technology

Enclosures

c: Division of Consumer Advocacy





## Exhibit 1: Detailed Current Status of Projects



The tables included in this exhibit are intended to provide detailed descriptions of the status of each of the Stage 1 and Stage 2 RFP projects. Similar to Table 2a and Table 3 in the transmittal, each project is given a color-coded dot indicating if the project is on target to meet its contracted Guaranteed Commercial Operations Date (“GCOD”) or at risk based on certain milestones in the PPA. The GCOD dates shown for the Stage 1 projects are representative of dates in the executed IRS Amendment. The GCOD dates shown for the Stage 2 projects are representative of dates in the executed PPAs filed with the Commission.


The “Current Status of Project” column includes details of where the project lies within a certain phase of its schedule as well as factors (e.g., delays, challenges, etc.) that impact its progress. As project schedules unfold, phases of the project and details will be updated. The goal is to provide the Commission with transparent information, regardless of if it is provided by the Companies or developers. The Companies will provide this information to keep the Commission properly informed of project status.

The Companies understand that meeting a project’s GCOD is top priority and therefore do not accept changes to the GCOD lightly. The Stage 1 and Stage 2 projects have gone through numerous challenges not only through the System Impact Studies, but also through negotiations in the IRS Amendment process. The bifurcation of the IRS in both Stage 1 and Stage 2 was meant to speed up the overall IRS process and execution of an IRS Amendment. However, as seen in the following tables for Stage 1, this has caused delays for both the Companies and developers. Other factors that affect the overall schedule for a project are re-studies (due to equipment changes, changes to the Point of Interconnection (“POI”), the removal of a project, etc.), developer attributable impacts, changes to the Company interconnection, engineering/design, procurement and construction. Through the disciplined collaboration with project developers, the Companies strive to not only meet the GCOD in the PPA, but also find ways to make improvements that affect the critical path of the project schedule.


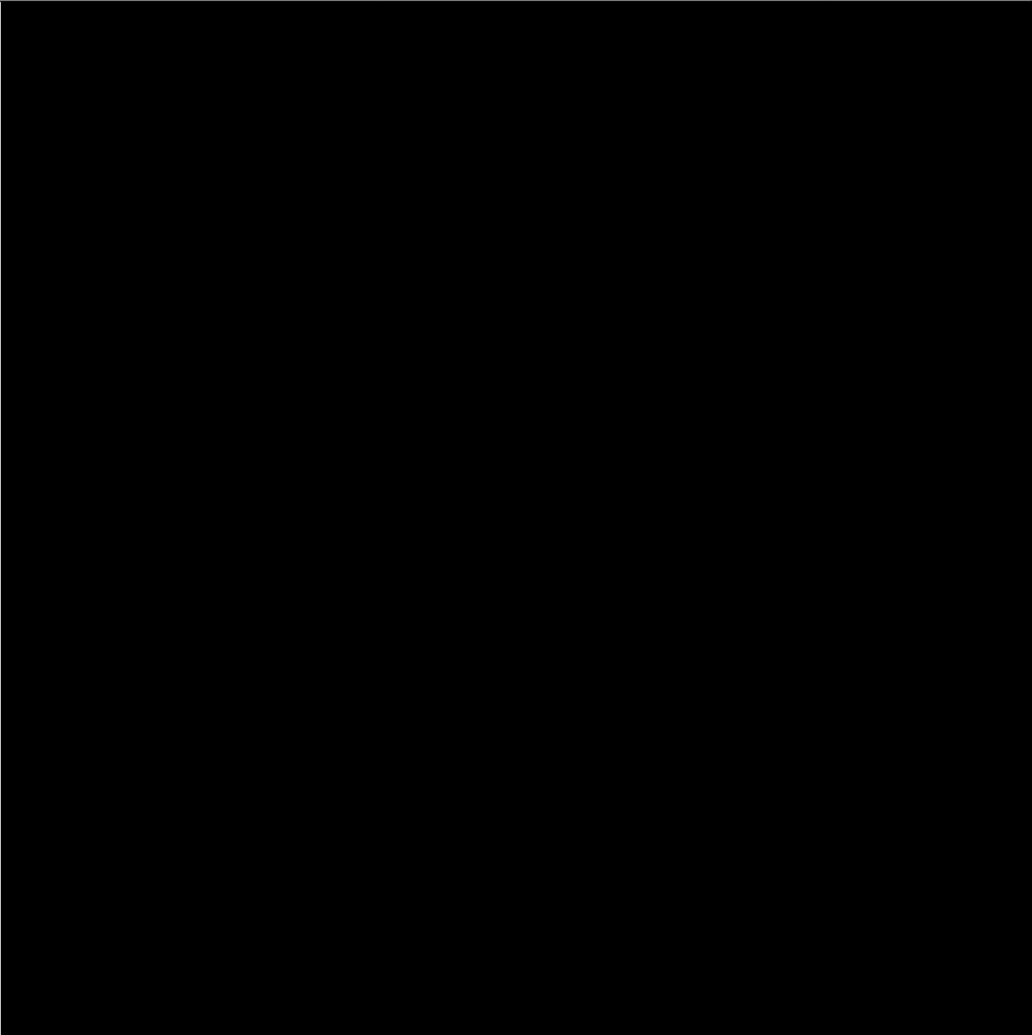





Current Status of Project (See Exhibit 2 for Project History)					
RFP Stage	Project Name	Size	Technology	GCOD	
1	AES West Oahu	12.5 MW, 50 MWh (BESS)	Solar + BESS	Sept. 7, 2022 	
1	AES Waikoloa	30 MW, 120 MWh (BESS)	Solar + BESS	Nov. 3, 2022 	
1	AES Kuihelani	60 MW, 240 MWh (BESS)	Solar + BESS	Oct. 27, 2023 	

Current Status of Project (See Exhibit 2 for Project History)					
RFP Stage	Project Name	Size	Technology	GCOD	
1	Hale Kuawehi	30 MW, 120 MWh (BESS)	Solar + BESS	Dec. 2, 2022 	
1	Paeahu Solar	15 MW, 60 MWh (BESS)	Solar + BESS	April 28, 2023 	


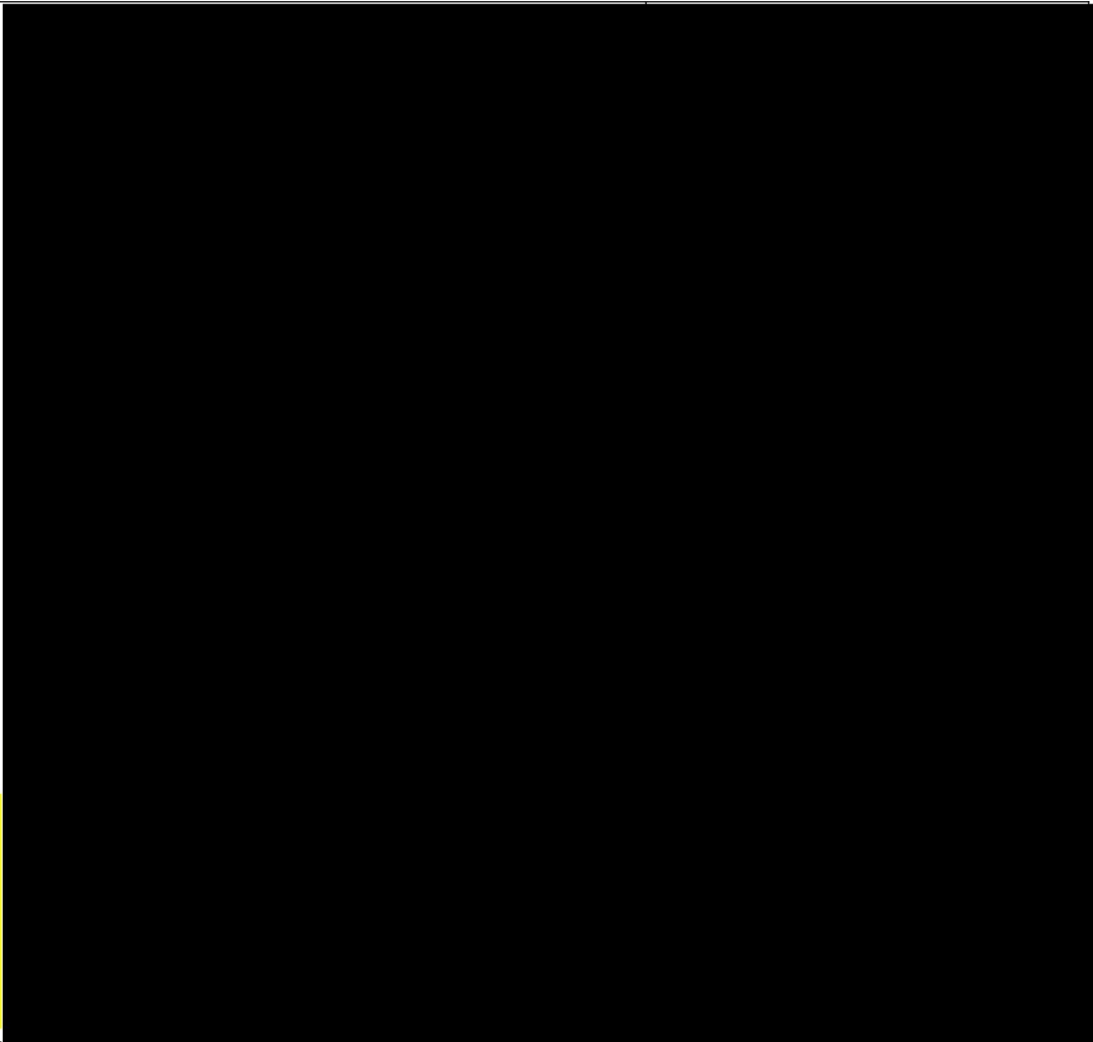

Current Status of Project (See Exhibit 2 for Project History)					
RFP Stage	Project Name	Size	Technology	GCOD	
1	Ho`ohana Solar I	52 MW, 208 MWh (BESS)	Solar + BESS	Aug. 31, 2023	





Current Status of Project (See Exhibit 2 for Project History)					
RFP Stage	Project Name	Size	Technology	GCOD	
1	Mililani I Solar	39 MW, 156 MWh (BESS)	Solar + BESS	Nov. 1, 2022 	
1	Waiawa Solar Power	36 MW, 144 MWh (BESS)	Solar + BESS	Dec. 1, 2022 	
2	Barbers Point Solar	15 MW, 60 MWh (BESS)	Solar + BESS	Dec. 29, 2023* 	

RFP Stage	Project Name	Size	Technology	GCOD	Current Status of Project (See Exhibit 2 for Project History)
2	Kapolei Energy Storage	135+50 MW / 540+25 MWh	Standalone battery (Lithium ion)	June 1, 2022* 	


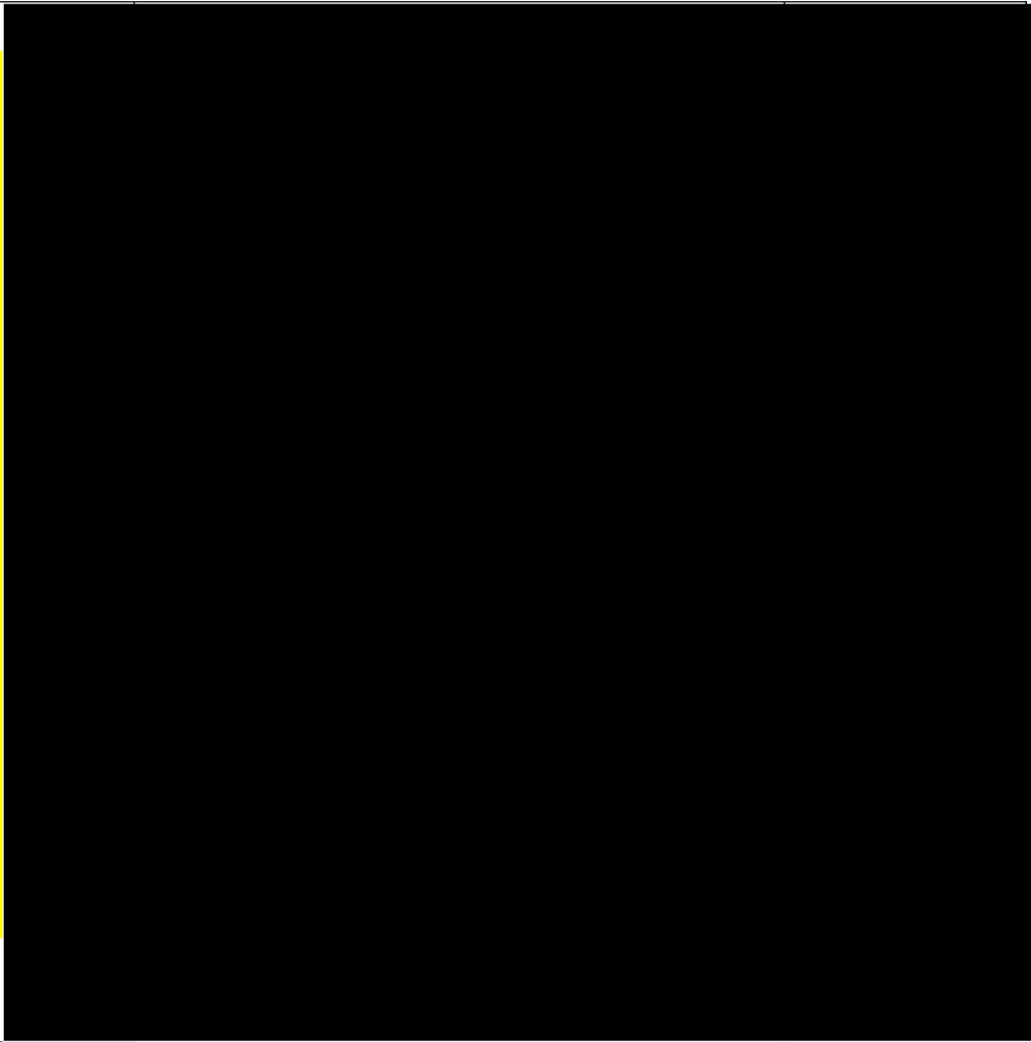






RFP Stage		Project Name	Size	Technology	GCOD	Current Status of Project (See Exhibit 2 for Project History)
2		Kupehau Solar	60 MW, 240 MWh (BESS)	Solar + BESS	May 31, 2022* 	
		Mahi Solar	120 MW, 480 MWh (BESS)	Solar + BESS	Dec. 31, 2023* 	


Current Status of Project (See Exhibit 2 for Project History)					
RFP Stage	Project Name	Size	Technology	GCOD	
2	Mountain View Solar	7 MW, 35 MWh (BESS)	Solar + BESS	May 17, 2023* 	

Current Status of Project (See Exhibit 2 for Project History)					
RFP Stage	Project Name	Size	Technology	GCOD	
2	Waiawa Phase 2 Solar	30 MW, 240 MWh (BESS)	Solar + BESS	Oct. 30, 2023* 	



RFP Stage		Project Name	Size	Technology	GCOD	Current Status of Project (See Exhibit 2 for Project History)
2		Kahana Solar	20 MW, 80 MWh (BESS)	Solar + BESS	Dec. 29, 2023* 	
		Kamaole Solar	40 MW, 160 MWh (BESS)	Solar + BESS	April 30, 2023* 	

Current Status of Project (See Exhibit 2 for Project History)					
RFP Stage	Project Name	Size	Technology	GCOD	
2	Pulehu Solar	40 MW, 160 MWh (BESS)	Solar + BESS	April 30, 2023* 	
2	Waena BESS	40MW, 160 MWh (BESS)	BESS	April 28, 2023 	
2	Keahole BESS	12 MW, 12 MWh (BESS)	BESS	Dec. 30, 2022 	

RFP Stage	Project Name	Size	Technology	GCOD	Current Status of Project (See Exhibit 2 for Project History)
2	Puakō Solar PV + BESS	60 MW, 240 MWh (BESS)	Solar + BESS	Sept. 30, 2023* 	

\* GCOD in the filed executed PPA

-  On target to meet GCOD
-  Reporting Milestone missed



**EXHIBIT 2**  
**Interconnection Process – Detailed Timeline for Stage 1 and Stage 2 RFPs and Phase 1 CBRE**



Note: Model Checkout took on average 7-9 iterations  
Items in Red resulted in significant changes to the System Impact Study and/or Facility Study

Figure 1. Stage 1 Project Timelines



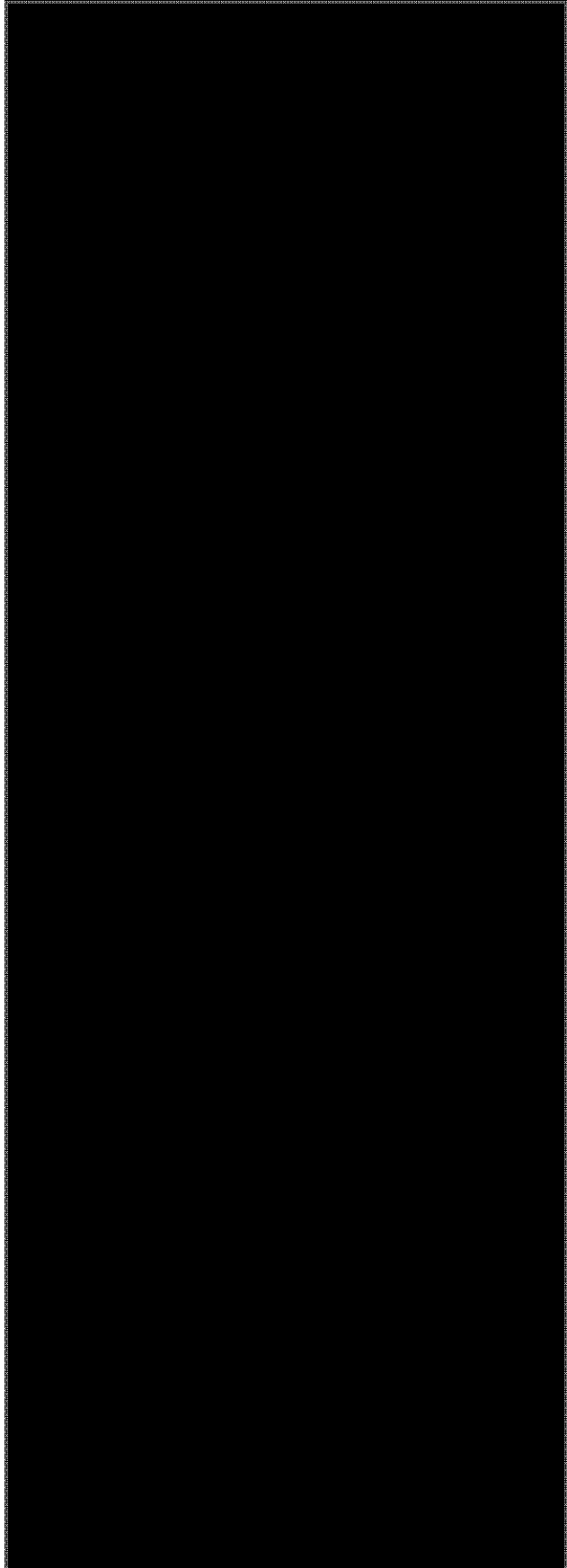
Note: Significant improvement in model checkout duration compared to Stage 1

Items in Red resulted in significant changes to the System Impact Study (SIS) and/or Facility Study (FS)

To expedite projects, we are sharing results and allowing the Final FS to proceed ahead of SIS-Grid Following report



Figure 2. Stage 2 Oahu Project Timelines (as of March 1, 2021)



Note: Significant improvement in model checkout duration compared to Stage 1  
To expedite projects, we are sharing results and allowing the Final FS to proceed ahead of SIS-Grid Following report



Figure 3. Stage Hawaii Island and Maui Project Timelines (as of March 1, 2021)



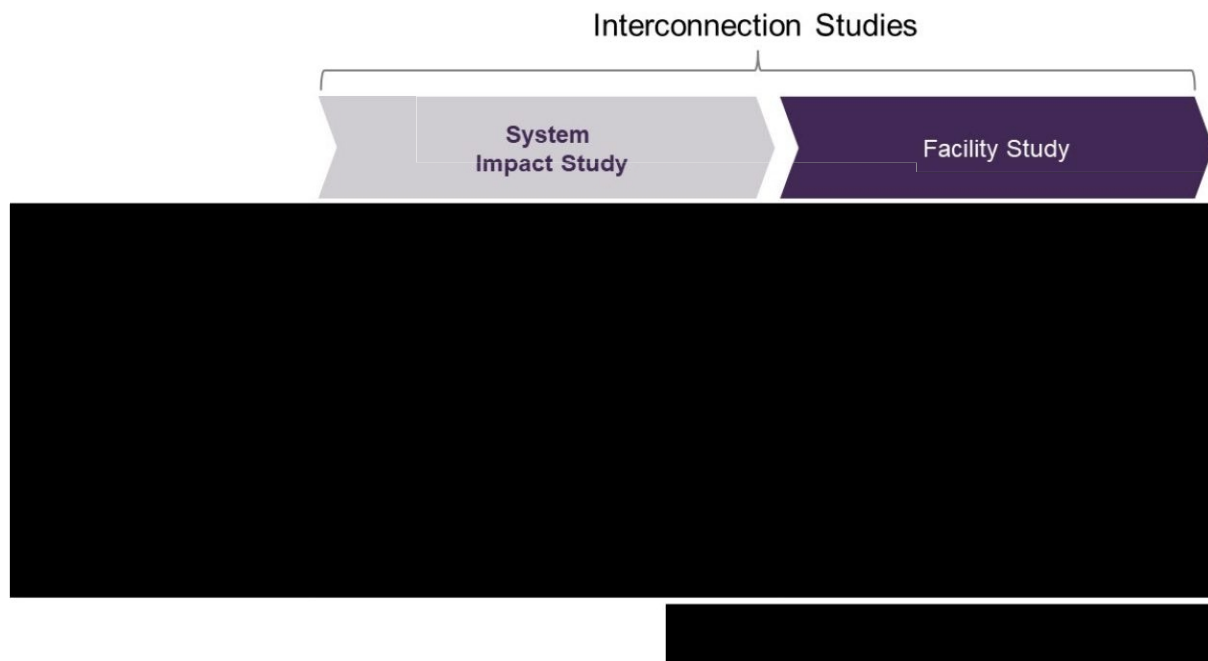


Table 1. CBRE IRS

CBRE Phase 1 Project Interconnection

On O‘ahu, the [REDACTED] did not require an IRS. That evaluation aided the Companies in implementing improvements with CBRE Phase 2 small projects to not require IRSs for project facilities on secondary distribution systems with available hosting capacity that are customer-owned. The Companies have also reduced IRSs for small projects from 150 calendar days to 90 calendar days once all required information is provided by the Subscriber Organization.

The Companies completed [REDACTED] IRSs on O‘ahu, including [REDACTED] [REDACTED] developers questioned the Companies’ interconnection requirements and standards, proposing deviations or asking the Companies to review removal of the standard requirements, which added significant time to the IRS process. The Companies prioritized project viability by exploring alternatives to lower costs and improve project financials, while balancing safe interconnections. Subsequently for the Facility Studies, the Companies held several meetings with the developers to explain the study results, answer questions, and incorporate solutions and developer changes which resulted in a re-issue of those Facility Studies. [REDACTED]

[REDACTED]

[REDACTED]

SIS

The quality of the models is critical to the SIS and its results, and, by extension, the reliability of the system. Models are not off the shelf, and each inverter manufacturer and plant controller have different ways of accomplishing performance requirements. The modeling tasks are technically challenging for the developers, their consultants and vendors. Models must be accurate representations of the facility and its operation. System integrators take the models of various components (e.g., PV inverters, battery inverters, plant controller) and integrate them all to represent the facility behavior in compliance with the dispatchable performance requirements described in the PPA. The developer and its team of consultants need to understand how they plan to run the facility. Since these are complex projects, developers often have not thought this far ahead during the preparation of their proposals. This becomes a challenge for modelling because this often leads to iterations in the models (e.g., will there be a master plant controller, or several plant controllers). If uncertainties exist, the Companies may need to make assumptions, but this may lead to re-studies once these uncertainties are clarified and the model is modified.

To be most expeditious, the Companies and their consultants have met virtually in real time with teams across the globe. Through these meetings, equipment manufacturers will often need to modify or add capabilities that are required, which takes time. On average, 7-9 model iterations were needed. The Companies' baseline schedule for the SIS for the Stage 1 Projects provided an approximately two-month time period for delivery of functional models by developers, and model review and confirmation by the Companies and their consultants. Ultimately, the model submission, review, and confirmation process took approximately 11 months, involving multiple interactions from the developer and developer consultants to properly demonstrate the functions of these emerging technologies. To mitigate further delays during the model validation process, some of the non-essential model issues were tabled for further investigation after the Stage 1 SIS study. Such issues need to be further reviewed in restudies, inclusive of addressing remaining model issues (to be performed), and review of generic models of multiple projects after the Stage 1 SIS.

During Stage 2, the Companies provided model requirement documentation and model check scenarios upfront which helped clarify expectations for the developers and allowed them to quality check their models prior to submission. Additionally, upfront discussions and conference calls during the model check out process help to expedite issue resolution. Developers that had experience from Stage 1, or utilized system integrators with experience from Stage 1, got through the model checkout process quickly. Developers new to the process took longer, but still made it through more quickly compared to Stage 1.

When comparing the model checkout durations between Stage 1 and Stage 2 in Figures 1 through Figures 3, it is clear that the process improvements above resulted in significant improvements to the model validation process, which was shortened by up to five months in Stage 2 even though more projects were procured than in Stage 1.

### Re-studies

A common practice for developers is to propose design or equipment changes to respond to community feedback, help reduce costs or take advantage of the latest technology after submission of original models. Changes to date have included new transformers, switching inverter manufacturers, changing the design of their system from AC- to DC-coupling of their PV and battery systems, or changing the configuration and rating of equipment. A request to change design or equipment is considered a positive thing if the request is made for the right reason. However, it takes time for the developers to prepare models related to equipment changes. In addition, these changes, elected by developers, result in the need for the Companies to re-start or re-study portions of the interconnection requirements. Depending on when the requests are made, these re-studies can take place while the original study is ongoing or after completion of the original Interconnection Requirements Study (IRS), necessitating a complete redo of the original IRS. However, as much as possible, the Companies avoid accepting changes while the SIS is underway to avoid disruption to the study and to other projects in the group study; developers can make changes before the study commences or after the study completes. The new models provided by project developers will need to be reviewed and a study is also needed to show that the changes to the project design and equipment do not lead to worse system performance compared to the original/existing design for a project. It is important to perform such quality check for purposes of identifying the impacts to system reliability.

These re-studies can often take months to complete, and in certain cases can cause delays to the project depending on the materiality of the change. Since the Companies do not allow for changes during the IRS, these changes will be proposed after the original IRS when developers have received their interconnection requirements. It may often be the case that the changes will not impact the interconnection requirements for the Project's facility, and the re-study can occur in parallel. The re-study checks that the new equipment or setting meets PPA standards, does not degrade performance of originally proposed equipment, and that the models are representative of the changes for use in our system model.

Ideally, all technical issues should be resolved prior to filing the PPA Amendment and request for Commission approval of a high voltage line extension. However, there may be cases where it is known, or there is enough of the system impact re-study completed to know, that the change will not impact the interconnection facilities. So as to not hold up the project, if the request for approval of the line extension is ready to be filed, the Companies have chosen to file it separately from the PPA Amendment in order to keep the project moving forward. Upon completion of the updated SIS, it can be filed with the PPA Amendment, or it can be filed afterward if the PPA Amendment has already been filed and the results materially impact the PPA.

Although there may not always be a direct impact to the schedule from the re-studies, they consume resources on both the developer's and Companies' side. There are certain situations where changes to one project can directly impact another project. [REDACTED]

[REDACTED]

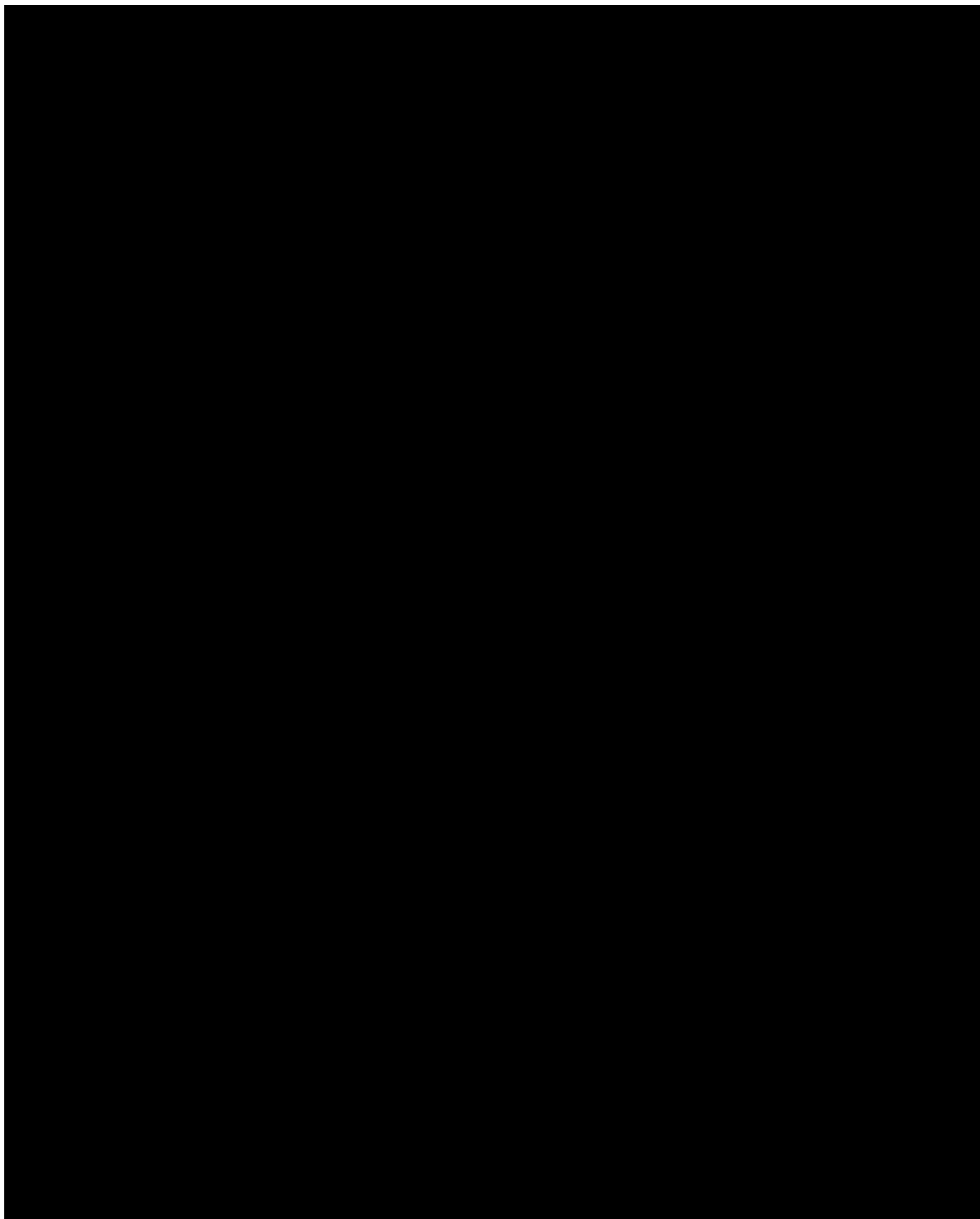


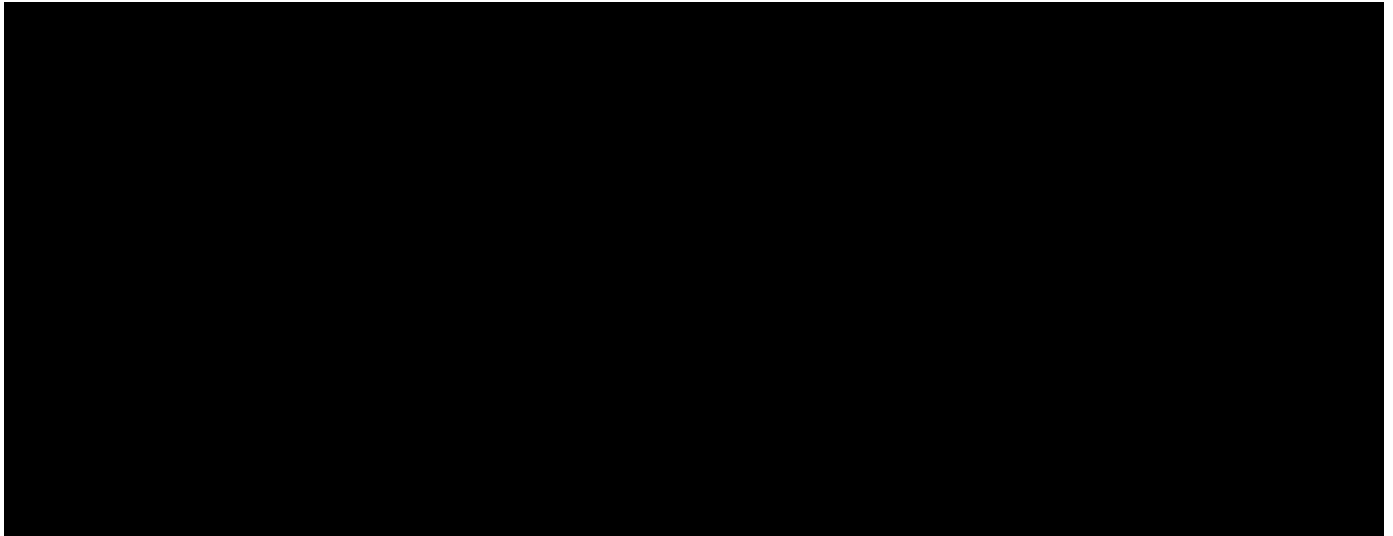
In the situation where the change occurs during the original SIS, there is a direct delay to the completion of the study as portions of the study need to be redone before the report can be issued. The model errors found during the SIS for [REDACTED] created a few weeks delay in order to rerun the studies and update the SIS report.

[REDACTED] are examples where the post-SIS changes have resulted in direct delays to the project. The SIS had to be redone, but more impactful to the project schedule was the time taken for active collaboration between the Companies and developer to negotiate and engineer the best solution, and the resulting impact to interconnection facilities. These changes have resulted in delays of [REDACTED] for each project, but may have provided permitting and construction time savings, cost savings, as well as addressing community concerns.

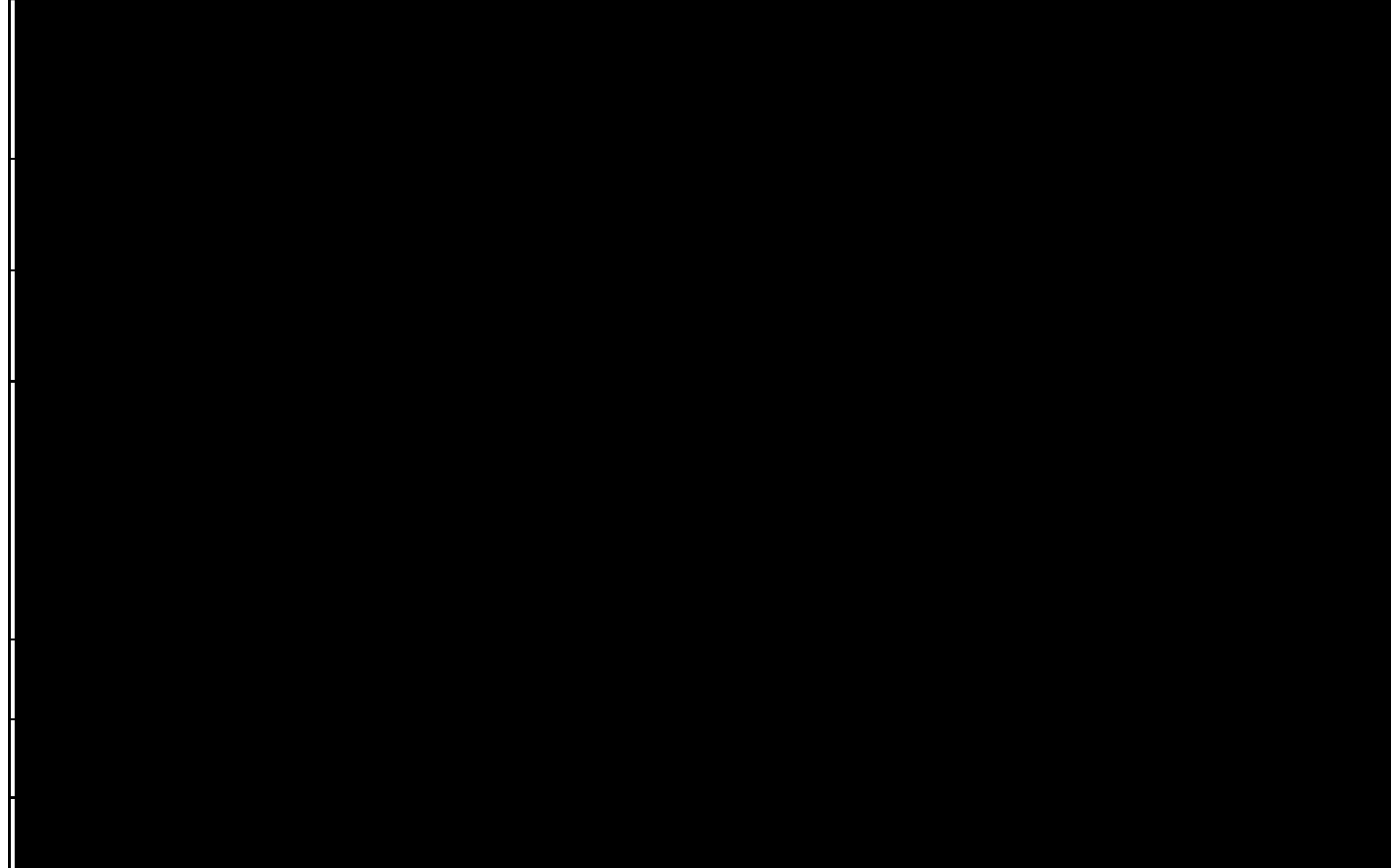
Separate IRS re-studies were required to accommodate such changes as noted in the table below, and reflected in the figures above.

<u>Project</u>	<u>Status</u>	<u>Developer Proposed Change Being Re-studied</u>
[REDACTED]		





**Table 2. Stage 1 Re-studies**

Project	Status	Developer Proposed Change Being Re-studied
		

**Table 3. Stage 2 Re-studies**

## Exhibit 3: Status of Permits and Government Approvals

### Stage 1 Projects

#### AES West Oahu

Permit	Jurisdiction	Department	Status
WEST OAHU	City & County of Honolulu and State of Hawaii	Department of Planning & Permitting: Land Use Commission	ETA Q2-2021
	City & County of Honolulu	Department of Planning & Permitting	ETA Q3-2021
	City & County of Honolulu	Department of Planning & Permitting	ETA Q3-2021
	State of Hawaii	DLNR - SHPD	APPROVED
	City & County of Honolulu and State of Hawaii	Department of Planning & Permitting (accepting agency); Office of Environmental Quality Control	APPROVED
	State of Hawaii	Commission on Water Resources	N/A
	State of Hawaii	Department of Health, Radiological Health Branch	ETA Q3-2021
	State of Hawaii	Department of Health, Clean Water Branch	ETA Q2-2021
	City & County of Honolulu	Department of Planning & Permitting	ETA Q4-2021
	City & County of Honolulu	Department of Planning & Permitting	ETA Q4-2021

#### AES Waikoloa

Permit	Jurisdiction	Department	Status
WAIKOLOA	County of Hawaii	Planning Department	ETA Q2-2021
	State of Hawaii	DLNR - SHPD	APPROVED
	United States	Army Corp of Engineers	N/A
	United States	US Fish and Wildlife Services	N/A
	United States	State Historic Preservation Officer	N/A
	State of Hawaii	Department of Health, Clean Water Branch	N/A
	State of Hawaii	Commission on Water Resources	N/A
	State of Hawaii	Department of Health, Clean Water Branch	APPROVED
	State of Hawaii	Department of Health, Radiological Health Branch	ETA Q2-2021
	County of Hawaii	Department of Public Works - Building Division	ETA Q2-2021
	County of Hawaii	Department of Public Works - Engineering Division	ETA Q2-2021
	County of Hawaii	Department of Public Works - Engineering Division	APPROVED

#### AES Kuihelani

Permit	Jurisdiction	Department	Status
KUIHELANI	County of Maui	Department of Planning	ETA Q3-2021
	State of Hawaii	DLNR - SHPD	ETA Q3-2021
	State of Hawaii	Department of Health, Clean Water Branch	APPROVED
	State of Hawaii	Department of Health, Radiological Health Branch	ETA Q1-2022
	County of Maui	Department of Public Works - DSA	ETA Q1-2022
	County of Maui	Department of Public Works - DSA	ETA Q1-2022



Hale Kuawehi

AGENCY	APPROVAL	Date of Approval	Status Summary e.g., dates of application / hearing / notice / etc. (note whether dates are anticipated or actual); major activities (indicate whether planned, in progress and/or completed); primary reasons for possible delay, etc.
Department of the Army – U.S. Army Corps of Engineers, Honolulu District	Approved Jurisdictional Determination – water features reviewed are excluded from the Clean Water Act jurisdiction	12/10/2020	
Department of Land and Natural Resources (DLNR) – Commission on Water Resource Management (CWRM)	Confirmation letter that CWRM does not require a Stream Channel Alteration Permit Application to be submitted because the proposed action does not affect instream flow standards	12/31/2020	
Fish and Wildlife Services – Pacific Island Fish and Wildlife Office	Technical Assistance Letter	12/15/2020	
DLNR – Division of Forestry and Wildlife (DOFAW)	Technical Assistance Letter		Draft Biological Resources Survey Report submitted to DOFAW in November 2020.
DLNR – State Historic Preservation Division (SHPD)	Chapter 6E-42 Historic Preservation Review		Draft Archaeological Inventory Survey Report submitted to SHPD in July 2020.
HDOT, Highways Division	Use and Occupancy Agreement		Submit Use and Occupancy Agreement to HDOT for review on 6/4/2021. Provided preliminary crossing details of OH Line to HDOT October 30, 2020 for discussion. Currently awaiting comments on crossing details. Conditional letter from HDOT in received January 29, 2021
HDOT, Highways Division	Permit to Perform Work within State Highway Right-of-Way		Submit permit application to HDOT for review on 7/26/2021. Requires HDOT Use and Occupancy Agreement executed in advance.
DOH, Environmental Management Division, Clean Water Branch	CWA 402, NPDES General Stormwater Permit		Contractor to obtain prior to construction.

AGENCY	APPROVAL	Date of Approval	Status Summary e.g., dates of application / hearing / notice / etc. (note whether dates are anticipated or actual); major activities (indicate whether planned, in progress and/or completed); primary reasons for possible delay, etc.
Hawaii County Department of Planning, Kona Division	Letter confirming the development of the solar facility project will not trigger the requirement of a Use Permit from the Planning Department.	05/17/2018	
Hawaii County Department of Planning, Planning Division Leeward Planning Commission	Plan Approval		Contractor to obtain prior to construction.
Hawaii County Department of Public Works and Environmental Management	Grading, Grubbing, and Building Permits		Contractor to obtain prior to construction.

Paeahu Solar

AGENCY	APPROVAL	Date of Approval	Status Summary e.g., dates of application / hearing / notice / etc. (note whether dates are anticipated or actual); major activities (indicate whether planned, in progress and/or completed); primary reasons for possible delay, etc.
Hawaii Public Utilities Commission	Approval of Power Purchase Agreement	10/15/2020	PPA filed 12/31/2018 and PUC approval obtained 10/15/2020. PUC approval process awaiting a procedural schedule for the interconnection Facilities/OH Line (filed in October 2020).
Hawaii Public Utilities Commission	Approval of OH Line		Interconnection Requirements Amendment: Request for Approval of Overhead Line filed on October 29, 2020. PUC procedural schedule pending.
Hawaii Department of Transportation (HDOT)	Exemption Notice	06/04/202	Published in the Office of Environmental Quality Control – The Environmental Notice dated July 8, 2020.
HDOT, Highways Division	Driveway Entry Permit		Drawings currently under review by HDOT
Department of the Army – U.S. Army Corps of Engineers, Honolulu District	Approved Jurisdictional Determination – water features reviewed are excluded from the Clean Water Act jurisdiction	08/25/2020	
Department of Land and Natural Resources (DLNR) – Commission on Water Resource Management (CWRM)	Confirmation letter that CWRM does not require a Stream Channel Alteration Permit Application to be submitted because the proposed action does not affect instream flow standards	04/13/2020	
Fish and Wildlife Services – Pacific Island Fish and Wildlife Office	Technical Assistance Letter	07/17/2020	
DLNR – Division of Forestry and Wildlife	Technical Assistance Letter	07/20/2020	
DLNR – State Historic Preservation Division	Chapter 6E-42 Historic Preservation Review	02/11/2021	

AGENCY	APPROVAL	Date of Approval	Status Summary e.g., dates of application / hearing / notice / etc. (note whether dates are anticipated or actual); major activities (indicate whether planned, in progress and/or completed); primary reasons for possible delay, etc.
Department of Health (DOH) Environmental Management Division, Indoor and Radiological Health Branch	Noise Permit		Contractor to obtain prior to construction.
DOH – Environmental Management Division, Clean Water Branch	CWA 402, NPDES General Stormwater Permit		Contractor to obtain prior to construction.
Maui County Department of Planning, Planning Division	County Special Use Permit – Paeahu Solar Project		Maui County Special Use Permit Application for the Paeahu Solar Project filed November 6, 2020. Maui County referred Special Use Permit (CUP 2020-0008) to other agencies on December 11, 2020. Agency comments are due mid-February 2021.
Maui County Department of Planning, Planning Division	County Use Permit Amendment – Auwahi Switchyard		Awaiting inputs from MECO to support finalization and filing of the Auwahi CUP amendment.
Maui County Department of Public Works and Environmental Management	Grading, Grubbing, Electrical, and Building Permits		Contractor to obtain prior to construction.

Hoohana Solar

Ho`ohana Permitting Milestones		
Discretionary / Environmental Permits	submission	received
<b>Conditional Use Permit Minor Mod</b>		
Initial Permit		Jan-15
Latest Amendment		Aug-20
<b>Zoning Waiver Permit</b>		
Permit		Aug-20
<b>Special Use Permit</b>		
HI State Land Use Commission		original LUC Decision Order approved 1-28-2015; amendment approved 10-8-20; Decision Order pending
46kV Line Relocation approval by PUC	TBD	TBD
<b>Ministerial / Building Permits</b>		
Grading / NPDES Permit (Initial Road Construction)		Dec-19
Department of Transportation Road Crossing Agreement	Not Applicable	
Building Permit (Solar and Battery Project)	May-21	Nov-21
Building Permit (Project Substation)	May-21	Nov-21
Building Permit (HECO Switchyard)	May-21	Nov-21
Grading / NPDES Permit (Solar and Battery Project)	May-21	Oct-21
Grading / NPDES Permit (Project Substation)	May-21	Oct-21
Grading Permit (HECO Switchyard)	May-21	Oct-21

## Mililani Solar

Table 6.2 - GOVERNMENT APPROVALS				
Please describe each of the Governmental Approvals to be obtained by Seller and the status of each:				
Approval Type	Agency	Status Summary e.g., dates of application / hearing / notice / etc. (note whether dates are anticipated or actual); major activities (indicate whether planned, in progress and/or completed); primary reasons for possible delay, etc.	Comments (List primary reasons for possible delay, etc.)	Approval Date (indicate expected/actual)
Conditional use permit modification	DPP	Approved on 1/23/20		1/23/2020
Grading & grubbing permit	DPP	Target submission in Nov 2020		Targeting Q1 2021
Building permit (HECO substation)	DPP	Target submission in Q1 2021		Targeting Q2 2021
Building Permit (PV Plant)	DPP	Target submission in Nov 2020		Targeting Q1 2021
Building Permit (Pty Substation)	DPP	Target submission in Q1 2021		Targeting Q2 2021
Building Permit (Control Enclosure)	DPP	Target submission in Q1 2021		Targeting Q2 2021

## Waiawa Solar

Table 6.2 - GOVERNMENT APPROVALS				
Please describe each of the Governmental Approvals to be obtained by Seller and the status of each:				
Approval Type	Agency	Status Summary e.g., dates of application / hearing / notice / etc. (note whether dates are anticipated or actual); major activities (indicate whether planned, in progress and/or completed); primary reasons for possible delay, etc.	Comments (List primary reasons for possible delay, etc.)	Approval Date (indicate expected/actual)
Land Use Motion to Amend	Land Use Commission	Approved on 2/11/20		2/11/2020
Conditional use permit	DPP	Approved on 4/3/2020		4/3/2020
Grading & grubbing permit	DPP	Target submission in Nov 2020		Targeting Q1 2021
Building permit (HECO substation)	DPP	Target submission in Q1 2021		Targeting Q2 2021
Building Permit (PV Plant)	DPP	Target submission in Nov 2020		Targeting Q2 2021
Building Permit (Pty Substation)	DPP	Target submission in Q1 2021		Targeting Q2 2021
Building Permit (Control Enclosure)	DPP	Target submission in Q1 2021		Targeting Q2 2021



## Stage 2 Projects

### Barbers Point Solar

AGENCY	APPROVAL	Date of Approval	Status Summary e.g., dates of application / hearing / notice / etc. (note whether dates are anticipated or actual); major activities (indicate whether planned, in progress and/or completed); primary reasons for possible delay, etc.
<b>FEDERAL</b>			
U.S. Fish and Wildlife Services (USFWS) – Pacific Island Fish and Wildlife Office	Technical Assistance Letter / Consultation under Section 7 of the Endangered Species Act of 1973, as amended, as required.		Request for Species List and Impact Avoidance Measures and draft Biological Resources Survey Report submitted to USFWS on October 27, 2020. Consultation with USFWS ongoing.
Federal Action Agency (U.S. Navy)	National Environmental Policy Act (NEPA) Environmental Assessment (EA)		Consultation with U.S. Navy ongoing. NEPA EA in preparation.
Federal Action Agency (U.S. Navy) in consultation with Hawaii Department of Land and Natural Resources (DLNR) State Historic Preservation Division (SHPD)	National Historic Preservation Act (NHPA), Section 106 Consultation		Consultation with U.S. Navy and SHPD ongoing.
Federal Aviation Administration (FAA), Western-Pacific Regional Office	Determination of No Hazard and Notice of Proposed Construction or Alteration		Met with Kalaheo Airport (JRF) & Kawaihapai-Dillingham Airfield (HDH) Statue of Hawaii DOTA Oahu District and Civil Air Patrol members in August 2020 to discuss project. A required for Determination of No Hazard is on track to be requested from the FAA prior to construction.
<b>STATE</b>			
Public Utilities Commission (PUC)	Decision & Order – Power Purchase Agreement		PPA filed with the PUC on September 15, 2020.
PUC	Decision & Order – Overhead Transmission Line		PUC Order No. 37428 approved bifurcation in November 2020.
Accepting Agency (Department of Hawaiian Homelands (DHHL))	Hawaii Environmental Policy Act (HEPA), Hawaii Revised Statutes (HRS) Chapter 343		Consultation with DHHL ongoing. HEPA EA in preparation.
DLNR – Division of Forestry and Wildlife (DOFAW)	Technical Assistance Letter		Request for Species List and Impact Avoidance Measures and draft Biological Resources Survey Report submitted to DOFAW on October 7, 2020. Consultation with DOFAW ongoing.
DLNR – State Historic Preservation Division	Chapter 6E-42 Historic Preservation Review		Draft Archaeological Inventory Report in preparation.
DOH – Environmental Management Division, Clean Water Branch	CWA §402, National Pollutant Discharge Elimination System (NPDES) General Stormwater Permit		Contractor to obtain prior to construction.
DOH - Environmental Management Division, Indoor and Radiological Health Branch	Noise Permit		Contractor to obtain prior to construction.
Department of Business Development, Economics, and Tourism, Office of Planning (DBEDT)	Coastal Zone Management (CZM) Consistency Determination		CZM review to be conducted with NEPA process (see U.S. Navy above).
Department of Transportation (DOT), Highways Division	Use and Occupancy Agreement / Permit to Perform Work within State Highway Right-of-Way		Consultation with DOT ongoing.
Hawaii Community Development Authority (HCDA)	Development Permit		Consultation with HCDA ongoing.
HCDA	Conditional Use Permit		Consultation with HCDA ongoing.
Hawaii Department of Transportation (HDOT)	Use and Occupancy Agreement		Received HDOT Conditional Letter for Use and Occupancy Agreement January 29 <sup>th</sup> 2021.
<b>CITY AND COUNTY OF HONOLULU</b>			
Honolulu County – Department of Planning and Permitting	Grading/Building and Other Construction Permits		Contractor to obtain prior to construction.

Kapolei Energy Storage

Permit	Department	Expected Approval
Conditional Use Permit - Minor	City and County of Honolulu, Department of Planning and Permitting	Approved
Grading and Grubbing Permit	City and County of Honolulu, Department of Planning and Permitting	9/1/2021
Building Permit	City and County of Honolulu, Department of Planning and Permitting	9/1/2021
NDPES Construction Stormwater Permit	State of Hawai'i Department of Health, Clean Water Branch	9/1/2021

Kupehau Solar

Kupehau Permitting Milestones		
Discretionary / Environmental Permits	submission	received
<i>Conditional Use Permit Minor Mod</i>		
Initial Permit	Jun-21	Sep-21
Latest Amendment	Not Applicable	
<i>Zoning Waiver Permit</i>		
Permit	Jun-21	Sep-21
<i>Special Use Permit</i>		
HI State Land Use Commission	Not Applicable	
46kV Line Relocation approval by PUC	Not Applicable	
<b>Ministerial / Building Permits</b>		
Grading / NPDES Permit (Initial Road Construction)	Not Applicable	
Department of Transportation Road Crossing Agreement	Dec-21	Aug-22
Building Permit (Solar and Battery Project)	Dec-21	Mar-22
Building Permit (Project Substation)	May-21	Nov-21
Building Permit (HECO Switchyard)	May-21	Nov-21
Grading / NPDES Permit (Solar and Battery Project)	Dec-21	Mar-22
Grading / NPDES Permit (Project Substation)	May-21	Oct-21
Grading Permit (HECO Switchyard)	May-21	Oct-21

## Mahi Solar

AGENCY	APPROVAL	Date of Approval	Status Summary e.g., dates of application / hearing / notice / etc. (note whether dates are anticipated or actual); major activities (indicate whether planned, in progress and/or completed); primary reasons for possible delay, etc.
Honolulu Planning Commission	Special Use Permit (SUP)		Submitted application 12/15/2020; currently responding to agency comments
Hawaii Land Use Commission	Special Use Permit (SUP)		
State Historic Preservation Div.	Plan Approval		Preparing application
Honolulu DPP	Conditional Use Permit for Type-B Utility Facility (CUP)		
Honolulu DPP	Conditional Use Permit for Joint Development Agreement (CUP)		Submitted application
Honolulu DPP	Zoning Waiver (ZW)		
State Dept of Transportation	Permit to cross public highway		(no longer required)
State Dept of Health	NPDES		
State Dept of Health	Noise Permit		
Honolulu DPP	Grading Permit		
Honolulu DPP	Building Permit(s)		

## Mountain View Solar

Permit	Jurisdiction	Department	Status
HRS 6E Compliance	State of Hawaii	DLNR - SHPD	ETA Q2-Q3 2021
Conditional Use Permit (Minor)	City & County of Honolulu	Department of Planning & Permitting	ETA Q4 2021 – Q1 2022
Zoning Waiver (IF APPLICABLE)	City & County of Honolulu	Department of Planning & Permitting	ETA Q4 2021 – Q1 2022
National Pollutant Discharge Elimination System (NPDES) Permit	State of Hawaii	Department of Health, Clean Water Branch	ETA Q4 2021 – Q1 2022
Noise Permit	State of Hawaii	Department of Health, Radiological Health Branch	ETA Q4 2021 – Q1 2022
Building and Electrical Permit	City & County of Honolulu	Department of Planning & Permitting	ETA Q1 2022 – Q2 2022
Grading, Grubbing and Stockpiling Permit	City & County of Honolulu	Department of Planning & Permitting	ETA Q1 2022 – Q2 2022

## Waiawa Phase 2 Solar

Permit	Jurisdiction	Department	Status
HRS 6E Compliance	State of Hawaii	DLNR - SHPD	ETA Q2-Q3 2021
Zone of Influence Approval (IF APPLICABLE)	State of Hawaii/Federal	Department of Health/US Navy	ETA Q2-Q3 2021
State Land Use Commission/ Amendment	State of Hawaii	Department of Business, Economic Development & Tourism	ETA Q3-Q4 2021
Conditional Use Permit (Minor)	City & County of Honolulu	Department of Planning & Permitting	ETA Q4 2021 – Q1 2022
Zoning Waiver (IF APPLICABLE)	City & County of Honolulu	Department of Planning & Permitting	ETA Q4 2021 – Q1 2022
National Pollutant Discharge Elimination System (NPDES) Permit	State of Hawaii	Department of Health, Clean Water Branch	ETA Q4 2021 – Q1 2022
Noise Permit	State of Hawaii	Department of Health, Radiological Health Branch	ETA Q4 2021 – Q1 2022
Building and Electrical Permit	City & County of Honolulu	Department of Planning & Permitting	ETA Q1 2022 – Q2 2022
Grading, Grubbing and Stockpiling Permit	City & County of Honolulu	Department of Planning & Permitting	ETA Q1 2022 – Q2 2022



Kahana Solar

AGENCY	APPROVAL	Date of Approval	Status Summary e.g., dates of application / hearing / notice / etc. (note whether dates are anticipated or actual); major activities (indicate whether planned, in progress and/or completed); primary reasons for possible delay, etc.
<b>FEDERAL</b>			
U.S. Fish and Wildlife Services (USFWS) – Pacific Island Fish and Wildlife Office	Technical Assistance Letter		Request for Species List and Impact Avoidance Measures and draft Biological Resources Survey Report submitted to USFWS on February 10, 2021.
Department of the Army – U.S. Army Corps of Engineers (USACE), Pacific Ocean Division, Honolulu Regulatory Branch	Approved Jurisdictional Determination (ADJ)  Clean Water Act (CWA) §404 Permit (nationwide permit [NWP] or individual permits), if required		Request for ADJ and draft Delineation of Wetlands and Other U.S. Waters submitted to USACE on February 1, 2021.
Federal Aviation Administration (FAA), Western-Pacific Regional Office	Determination of No Hazard and Notice of Proposed Construction or Alteration		Met with Hawaii Dept of Transportation: Maui District Airport Manager, Head Planner, and staff in August 2020 to discuss project. A required for Determination of No Hazard is on track to be requested from the FAA prior to construction.
<b>STATE</b>			
Public Utilities Commission (PUC)	Decision & Order – Power Purchase Agreement		PPA filed with the PUC on September 15, 2020. PUC issued Order No. 37393 on February 4, 2021 approving the request to bifurcate proceeding and granting participant status to Kahana Solar and WMPA. PUC procedural schedule pending.
PUC	Decision & Order – Overhead Transmission Line		PUC issued Order No. 37393 on February 4, 2021 approving the request to bifurcate proceeding and granting participant status to Kahana Solar and WMPA.

AGENCY	APPROVAL	Date of Approval	Status Summary e.g., dates of application / hearing / notice / etc. (note whether dates are anticipated or actual); major activities (indicate whether planned, in progress and/or completed); primary reasons for possible delay, etc.
Department of Land and Natural Resources (DLNR) – Division of Forestry and Wildlife (DOFAW)	Technical Assistance Letter		Request for Species List and Impact Avoidance Measures and draft Biological Resources Survey Report submitted to DOFAW on February 10, 2021.
DLNR – State Historic Preservation Division	Chapter 6E-42 Historic Preservation Review		Draft Archaeological Inventory Report in preparation.
DLNR – Commission on Water Resource Management (CWRM)	Request for Determination  Stream Channel Alteration Permit, if required		Pending USACE determination of the ADJ status of any streams potentially impacted by the Project (see USACE above) then consultation with CWRM to determine their jurisdiction.
Department of Health (DOH), Environmental Management Division, Clean Water Branch (CWB)	CWA §401 Water Quality Certification (WQC)/ Compliance with HAR 11-54 (Water Quality Standards)		If a CWA §404 permit for impacts to jurisdictional waters are anticipated (see USACE above), the Project assumes a CWA §401 WQC will be needed. If the Project qualifies for a NWP under CWA §404, then it is likely the Project will qualify for a blanket WQC.
DOH – Environmental Management Division, Clean Water Branch	CWA §402, National Pollutant Discharge Elimination System (NPDES) General Stormwater Permit		Contractor to obtain prior to construction.
DOH – Environmental Management Division, Indoor and Radiological Health Branch	Noise Permit		Contractor to obtain prior to construction.
Department of Business Development, Economics, and Tourism, Office of Planning (DBEDT)	Coastal Zone Management (CZM) Consistency Determination		CZM federal review required if a USACE CWA §404 Permit is necessary unless the Project qualified under §404 NWP that already has CZM federal concurrency authorized (see USACE above).
State Land Use Commission (LUC)	State Special Use Permit (SUP)		Consultation with LUC and Maui County ongoing. SUP/CUP application in preparation.
<b>COUNTY</b>			
Maui County Department of Planning, Planning Division	County Special Use Permit (CUP) – Kahana Solar Project		Consultation with LUC and Maui County ongoing. SUP/CUP application in preparation.
Maui County Department of Planning, Planning Division	County Special Use Permit – MECO Switchyard		Consultation with LUC and Maui County ongoing. SUP/CUP application in preparation.

Kamaole Solar

Governmental Approvals

Please describe each of the Governmental Approvals to be obtained by Seller and the status of each:

Agency / Approval	<b>Status Summary</b> e.g., dates of application / hearing / notice / etc. (note whether dates are anticipated or actual); major activities (indicate whether planned, in progress and/or completed); primary reasons for possible delay, etc.
County of Maui Special Use Permit	Field surveys, studies and consultation required for the SUP application are expected to commence February 2021
State Historic Preservation Division HRS 6E Concurrence	Field surveys, cultural assessment and consultation required for SHPD application are expected to commence February 2021
County of Maui Building Permit	Activities for this permit will commence when detailed design commences. Consultation with builder officer is expected in March 2021
County of Maui Grading Permit	Activities for this permit will commence when detailed design commences.
Department of Health National Pollutant Discharge Elimination System (NPDES)	Activities for this permit will commence when detailed design commences.



Pulehu Solar

AGENCY	APPROVAL	Date of Approval	Status Summary e.g., dates of application / hearing / notice / etc. (note whether dates are anticipated or actual); major activities (indicate whether planned, in progress and/or completed); primary reasons for possible delay, etc.
Maul Planning Commission	Special Use Permit (SUP)		Submitted application December 2020; in review by County DPW; anticipated approval 06/09/21
State Historic Preservation Div.	Plan Approval		Submitting application February 2021; anticipated approval 05/31/21
Hawaii Dept of Health	NPDES		08/08/21
Hawaii Dept of Health	Noise Permit		TBD
Maul DPW	Grading Permit		Anticipated approval 10/07/21
Maul DPW	Building Permit(s)		Anticipated approval 10/25/21
PUC	D&O approving PPA		Submitted final SOP in February; anticipated approval 04/15/21.
PUC	IRS amendment filed		Anticipated filing 08/26/21

**Waena BESS<sup>1</sup>**

Start of construction is contingent upon approval of the permits:

- Soil Erosion and Sedimentation Control; Grading Control (County of Maui Department of Public Works, Development Services Administration Division)
- Soil Erosion and Sedimentation Control; Grubbing Permit (County of Maui Department of Public Works, Development Services Administration Division)
- Building Permit (County of Maui Department of Public Works, Development Services Administration Division)
- NPDES Construction Stormwater Permit (State of Hawaii Department of Health, Clean Water Branch)
- SHPD Clearance

**Keahole BESS<sup>2</sup>**

- Site Plan Approval (Hawaii County Planning Department)
- Building/Electrical Permit (Hawaii County Public Works)
- Fire Department Review (concurrent, if required)
- Grading, Grubbing & Stockpiling Permits, if required pending cut/fill quantities (Hawaii County Public Works)
- SHPD Clearance (if Grading Permit is required)

<sup>1</sup> See Company's Responses to Consumer Advocate's Second Information Requests, CA-IR-12, filed March 3, 2021, in Docket No. 2020-0132.

<sup>2</sup> See Company's Responses to Consumer Advocate's Supplemental Information Requests, CA-SIR-2, filed December 7, 2020, in Docket No. 2020-0127.

## Puako Solar

### Project Development Updates

Generally, the project has made significant progress recently in completing reports and studies that will serve as the foundation for the necessary governmental approvals.

- Archaeological Inventory Survey Data received 11/6/2020
- Final Topographic Data received 1/21/2021
- Water Survey Report received 2/4/2021
- Biological Survey Report received 2/18/2021
- Geotechnical Test Pile Report expected by 3/5/2021
- **10% Civil design expected during week of 3/1/2021**
  - Project is currently performing an electrical review of the 10% Civil Design.

This 10% design package will be reviewed with project consultants. Once feedback is incorporated, the project team will begin agency consultation.

### Status of major governmental approvals

Agency	Status
<i>Federal</i>	
U.S. Army Corp of Engineers (USACE)	ENGIE and consultant preparing consultation outreach based on Waters Report. Conclusion of the report is that all streams within project area not jurisdictional under NWPR.
U.S. Fish and Wildlife Service (USFWS)	ENGIE and consultant preparing outreach based on Biological Report. ENGIE to follow recommended measures in report.

Agency	Status
<i>State</i>	
DLNR State Historic Preservation Division (SHPD) Cultural and Historic Resources Review	ENGIE has incorporated Archeologist recommendations in the 10% civil design. The AIS is being updated to reflect this 10% design which will then be shared with the SHPD office.
DLNR Commission on Water Resource Management	ENGIE and consultant preparing consultation outreach based on Waters Report.
DLNR Dept. of Forestry and Wildlife (DOFAW) Endangered Species Act Compliance	ENGIE and consultant preparing outreach based on Biological Report. ENGIE to follow recommended measures in report.
DOH Office of Environmental Quality Control HEPA review	ENGIE and consultant updating consultation approach based on 10% civil design.
DOH National Pollutant Discharge Elimination System (NPDES) General Permit	ENGIE will contract with local civil consultation to complete this permit.
Hawaii Public Utility Commission (PUC) Power Purchase Agreement Approval	Review proceeding under Docket 2020-0189.
Hawaii Department of Transportation Permit to Work Within the State Right-of-Way	Access Exhibit and Transportation Plan being prepared based on 10% design package.
<i>Local</i>	
County of Hawaii Planning Department Use Permit / Plan Approval	Soft outreach ongoing via local community engagement. ENGIE has been incorporating early feedback into project plan and site design.
Construction Permits: <ul style="list-style-type: none"> <li>• Building Permit</li> <li>• Electrical Permit</li> <li>• Grading Permit</li> <li>• Grubbing Permit</li> <li>• Stockpiling Permit</li> </ul>	To be prepared based on final design.

CBRE Phase 1 Projects:

Project	AGENCY	APPROVAL	Date of Approval	Status Summary e.g., dates of application / hearing / notice / etc. (note whether dates are anticipated or actual); major activities (indicate whether planned, in progress and /or completed); primary reason for possible delay, etc.)
Tritium3 - Makakilo Solar I	City and County of Honolulu, Department of Planning and Permitting	Conditional Use Permit - Minor		Developer has received discretionary approval, expects to be issued by November.
		Building Permit		
Arion Energy - KHLS	Hawai'i Community Development Authority			Developer reports no delays.
	City and County of Honolulu, Department of Planning and Permitting			
Neighborhood Power - Kawela Plantation				Developer has not yet responded to inquiry 2/26/2021.
Arion Energy - South Point	City and County of Honolulu, Department of Planning and Permitting			Process started, developer reports no delays.

**EXHIBIT 4: CONFIDENTIALITY JUSTIFICATION TABLE**

Hawaiian Electric Company, Inc., Hawai'i Electric Light Company, Inc. and Maui Electric Company, Limited (collectively "Hawaiian Electric" or the "Companies") hereby identify redacted confidential and/or proprietary information that will be submitted as "confidential information" upon issuance of a Protective Order in this proceeding. This log (1) identifies, in reasonable detail, the confidential information's source, character, and location; (2) states clearly the basis for the claim of confidentiality; and (3) describes, with particularity, the cognizable harm to the producing party or participant from any misuse or unpermitted disclosure of the information.

Reference	Identification of Item	Basis of Confidentiality	Harm
Exhibit 1: Detailed Current Status of Projects	Confidential information related to the status of each of the Stage 1 and Stage 2 RFP and CBRE projects.	Confidential and/or proprietary commercial and financial project information which falls under the frustration of legitimate government function exception of the Uniform Information Practices Act ("UIPA"). <sup>1</sup>	<p>The redacted information includes confidential project information, including negotiated actions taken by the Companies to address developer delays. Disclosure of the confidential information to the public, including other independent power producers, could harm the Companies by jeopardizing the Companies' current or future competitive bidding solicitations, procurements and contract negotiations by providing an unfair business advantage, resulting in prejudice to the Companies and their customers. Disclosure of the confidential information can also expose the Companies to certain liabilities since the redacted information is also subject to non-disclosure agreements.</p> <p>The Companies maintain that the subject information falls under the frustration of legitimate government function exception of the UIPA, as disclosure of the subject information would impair the Commission's ability to obtain necessary information to properly perform its review of this regulatory proceeding (as the</p>

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<sup>1</sup> Haw. Rev. Stat. § 92F-13(3)



Reference	Identification of Item	Basis of Confidentiality	Harm
			<p>Companies would not have submitted the confidential information in this docket but for: (1) the governmental function of reviewing the Companies' requests for approval of the various projects; and (2) the Companies' belief and reliance that the information would not be publicly disclosed).</p> <p>The confidential information: (1) has not been previously disclosed or otherwise publicly disseminated; (2) is not of the kind of information that the Companies would customarily disclose to the public; and (3) is of a nature that its disclosure could (a) impair the Commission's ability to obtain necessary information from similarly situated parties in the future, and (b) cause substantial harm to the Companies and/or its customers as previously described above.</p>

Reference	Identification of Item	Basis of Confidentiality	Harm
<p>Exhibit 2: Interconnection Process – Detailed Timeline for Stage 1 and Stage 2 RFPs and Phase 1 CBRE</p>	<p>Stage 1, Stage 2 and CBRE project timelines, interconnection studies status, information related to re-studies for project changes</p>	<p>Confidential and/or proprietary commercial, financial information which falls under the frustration of legitimate government function exception of the UIPA.</p>	<p>The redacted information includes confidential project information, including negotiated actions taken by the Companies to address developer delays. Disclosure of the confidential information to the public, including other independent power producers, could harm the Companies by jeopardizing the Companies' current or future competitive bidding solicitations, procurements and contract negotiations by providing an unfair business advantage, resulting in prejudice to the Companies and their customers. Disclosure of the confidential information can also expose the Companies to certain liabilities since the redacted information is also subject to non-disclosure agreements.</p> <p>The Companies maintain that the subject information falls under the frustration of legitimate government function exception of the UIPA, as disclosure of the subject information would impair the Commission's ability to obtain necessary information to properly perform its review of this regulatory proceeding (as the Companies would not have submitted the confidential information in this docket but for: (1) the governmental function of reviewing the Companies' requests for approval of the various projects; and (2) the Companies' belief and reliance that the information would not be publicly disclosed).</p> <p>The confidential information: (1) has not been previously disclosed or otherwise publicly disseminated; (2) is not of the kind of information that the Companies would customarily disclose to the public; and (3) is of a</p>

Reference	Identification of Item	Basis of Confidentiality	Harm
			<p>nature that its disclosure could (a) impair the Commission's ability to obtain necessary information from similarly situated parties in the future, and (b) cause substantial harm to the Companies and/or its customers as previously described above.</p>

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The foregoing document was electronically filed with the State of Hawaii Public Utilities Commission's Document Management System (DMS).